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CAUSAL ATTRIBUTIONS IN SCHIZOPHRENIA:

An investigation of clients' and relatives' causal attributions about the illness. This will be examined in relation to clients' perceptions of family relationships, knowledge about schizophrenia and family distress.

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**Submitted in partial fulfilment of the requirements for the degree of
*DOCTORATE OF CLINICAL PSYCHOLOGY***

**CLINICAL PSYCHOLOGY
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1. ABSTRACT

Many clients with severe mental health problem, live in the community with their relatives. Research in the area has indicated that exacerbation of psychotic symptoms in clients is strongly associated with the emotional atmosphere in the family. The presence of high expressed emotion has been linked with relapse. However, recent research suggests that it is the causal attributions which relatives make to explain the illness symptomatology, which is most predictive of relapse. Relatives viewing clients' symptoms as being controllable by the client has been associated with hostility in relatives.

Little has been said in the literature about the subjective experiences of clients. The present study investigated the causal attributions which clients and relatives made to explain the manifestation of the illness. Causal attributions made to explain positive symptoms, negative symptoms and behavioural problems were examined and compared. Clients' perception of their relationship with a key relative and their affective state was measured. Participants knowledge about schizophrenia, and relatives levels of distress were also examined.

The clients in the present study were men under fifty with a diagnosis of schizophrenia. Key relatives also participated. A cross sectional correlational and comparative methodology was employed. A mixture of quantitative data and qualitative information was generated. A key finding was that the nature of attributions made was determined by symptom category. Positive Symptoms were deemed to be the least controllable symptom and Behavioural Problems were considered the most controllable. Relationships existed between the attributions made by clients and relatives. Depression in clients was related to them attributing their illness to personal factors, and a reporting negative feelings about there relationship with a key relative. Findings are discussed in relation to literature, research and clinical practice.

Contents	Page
1. ABSTRACT.....	2
2. INTRODUCTION.....	6
2.1 Schizophrenia and the Family.....	6
2.1.1 The Role of the Family - Early Theories of Causality.....	7
2.1.2 Expressed Emotion in Families.....	8
2.1.3 Do Psychosocial Factors Impact on Levels of Expressed ?.....	10
2.1.4 Summary.....	11
2.2 Attribution Theory - An Overview.....	12
2.2.1 Defining the Underlying Properties of Causal Attributions.....	14
2.2.2 Causal Attributions - Their Impact on Feelings and Behaviour.....	15
2.2.3 Actor and Observer Differences in Perception.....	16
2.2.4 The Self Perspective.....	17
2.2.5 Summary.....	18
2.3 Families' Causal Attributions about Symptoms Associated with Mental Illness.....	19
2.4 Clients' Experiences of their Mental Health Problems.....	21
2.4.1 Summary.....	23
2.5 The Present Study.....	23
2.5.1 Hypothesis One: (Null).....	25
2.5.2 Hypothesis Two : (Null).....	25
2.5.3 Hypothesis Three: (Null).....	25
2.5.4 Hypothesis Four : (Null).....	26
2.5.5 Hypothesis Five : (Null).....	26
2.5.6 Hypothesis Six : (Null).....	26
2.5.7 Hypothesis Seven : (Null).....	26
2.5.8 Hypothesis Eight : (Null).....	26
3. METHOD.....	27
3.1 Design.....	27
3.2 Participants.....	27
3.2.1 Inclusion Criteria.....	27
3.2.2 Description of Samples.....	27
3.3 Measures.....	28
3.3.1 Development of the Research Interviews.....	28
3.3.2 The Leeds Attributional Coding System.....	30
3.3.3 Knowledge Questionnaires.....	35
3.3.4 Family Distress Scale.....	36
3.3.5 Lebell Scales.....	37
3.3.6 Beck Depression Inventory.....	37
3.4 Procedure.....	39
3.4.1 Recruitment of Participants.....	39
3.4.2 Initial Briefing Given to Clients.....	40
3.4.3 Format of Research Interview with Clients.....	41
3.4.4 Briefing and Format of Meeting with Relatives.....	42
3.4.5 De-briefing Offered to Participants.....	42
3.5 Ethics.....	43
3.6 Data analysis.....	43
3.6.1 Statistical Analysis.....	43
3.6.2 Qualitative Analysis.....	45
4. RESULTS.....	46
4.1 Results Pertaining to Hypotheses about Client Data.....	47
4.1.1 Hypothesis One: (Null).....	47
4.1.2 Hypothesis Two : (Null).....	51
4.1.3 Hypothesis Three: (Null).....	53

4.1.4 Hypothesis Four : (Null).....	54
4.2 Results Pertaining to Hypotheses about Relative Data.....	55
4.2.1 Hypothesis Five : (Null).....	55
4.3 Correlational Results between Clients and Relatives.....	60
4.3.1 Hypothesis Seven : (Null).....	60
4.3.2 Hypothesis Eight : (Null).....	60
4.4 Summary of Results	62
4.4.1 Causal Attributions in Relation to Symptom Categories	62
4.4.2 Correlations between Relatives and Clients	63
4.4.3 Clients Attributions about Illness and Perception of Relationship with a Key Relative in Relation to Depression	63
4.4.4 Relationship between Relatives' Knowledge about Schizophrenia and Levels of Distress.	64
4.5 Qualitative Analysis	64
4.5.1 A Guide to Figures One and Two.....	64
4.5.2 Examination of Figures One and Two.....	65
5. DISCUSSION	69
5.1 Discussion of Results	69
5.1.1 Results Pertaining to Clients' and Relatives' Causal Attributions.....	69
5.1.2 Relationship Between Clients' and Relatives' Attributions.....	71
5.1.3 Depression, Attributions, and Perception of Relationship with a Key Relative.....	72
5.1.4 Knowledge about Schizophrenia and Distress.....	74
5.1.5 Summary	74
5.1.6 Discussion of Qualitative Findings.....	76
5.2 Discussion of Method.....	77
5.2.1 Participant Recruitment.....	77
5.2.2 Format and Location of Interviews.....	78
5.2.3 Issues Concerning Measures Used	79
5.2.4 Discussion of Analysis	81
5.3 Clinical Implications	82
5.3.1 Summary	85

List of Tables	Page
Table 1: Percentage Agreement Between Researcher and Co-coder.....	35
Table 2: Description of data on Causal Attribution scores across categories; N = 18.....	47
Table 3: Differences between Causal Attribution Scores across Symptomatic Categories for Client data, using the Friedman two way analysis of variance.....	48
Table 4: Analysis of differences between Symptomatic Categories for Client data using the Wilcoxon Matched Pairs Signed Ranks Test.....	48
Table 5: Descriptive information concerning results generated from the Beck Depression Inventory; N = 14.....	51
Table 6: Descriptive Data on Causal Attribution Scores for Clients' Overall Attribution Scores; N = 14	51
Table 7: Correlations between Depression Scores and combined Causal Attribution Scores; N =14	52
Table 8: Descriptive data pertaining to ratings on the Lebell Scales; N = 14.....	53
Table 9: Descriptive data related to valid cases on the Lebbel B Scale and the BDI; N = 13.....	54
Table 10: Description of Causal Attribution Scores across categories; N = 11	55
Table 11: Differences between Causal Attribution scores across Symptomatic Categories for Client data, using the Friedman two way analysis of variance; N = 11.....	56
Table 12: Analysis of differences between Symptomatic Categories for Relative data using the Wilcoxon Matched Pairs Signed Ranks Test; N = 11	56
Table 13: Descriptive Information about Relative Knowledge and Distress Scores; N = 9.....	59
Table 14: Descriptive Information on Knowledge Scores for Relatives and Clients; N = 5 matched pairs.....	60
Table 15: Causal Attribution Scores for Participants' Overall Attribution Scores; N = 9	61
Table 16: Correlations between Clients' and Relatives' Overall Causal Attribution Scores on each dimension; N= 11 matched pairs.....	61

List of Figures	Page
Figure 1: Client	67
Figure 2: Relative.....	68

2. INTRODUCTION

The motivation to conduct the present study has arisen from a long standing clinical interest in the field of psychosis. The author's experience prior to clinical training was in the area of psychiatric rehabilitation, and this interest has been sustained. Service responses to clients and their families are marked by their variability in terms of quality and choice. It is the author's belief that the best services take an holistic view of the difficulties with which clients present. This may involve individual work with the client and life planning in addition to neuroleptic treatment. Furthermore, it is the author's belief that where appropriate, every effort should be made to offer family work to clients and their relatives. Evidence abounds in the literature highlighting the importance of the family in the course of psychosis. The study to follow investigates the beliefs which clients and their relatives have about the symptoms associated with the illness.

The introduction begins by detailing the way in which families have been implicated as affecting the course of schizophrenia. This is followed by an introduction to the field of attribution theory, an area which has recently been applied to understanding the beliefs which families hold about psychosis. The subjective distress experienced by carers is then considered. This is followed by the examination of the subjective experiences which clients with psychosis encounter.

2.1 Schizophrenia and the Family

Since the late 1950's there has been a steady movement towards the de-institutionalisation of people experiencing severe and enduring mental health problems. In part this was related to the wide scale optimism regarding the prophylactic effects of neuroleptic medication, in reducing the disturbing symptoms associated with psychosis and government policy. However, over thirty years later, it is clear that biological treatments do not in themselves prevent relapse. Moreover, they can lead to disabling side effects and social disability (Birchwood and Smith, 1992). The movement towards supporting clients in the community frequently meant the relocation of people

experiencing severe and enduring mental health problems into their families of origin. This has placed relatives in the supportive role which was previously occupied by the state (MacCarthy, 1988).

The movement towards community care over the last thirty years has also been accompanied by considerable interest in the role of social and situational factors in the possible etiological causes for psychotic phenomena, and influences on relapse. To follow is an historical overview of how the role of the family has been viewed as being causally involved in the development and course of schizophrenia.

2.1.1 The Role of the Family - Early Theories of Causality

Early systemic theories sought to challenge the medical model which proposed biological explanations for the manifestation of psychotic symptoms, and understand the development and maintenance of schizophrenia in terms of the families interactional processes. Bateson, Jackson, Haley and Weakland (1956) developed 'the double-bind theory' specifically to provide an understanding of psychotic symptoms. The initial formulation proposed that when children receive conflicting messages from relatives, they grow up distorting important aspects of themselves and their perceptions. Paradoxical communications may involve a child receiving messages overtly, which are habitually contradicted at an abstract level, and accompanied by covert prohibitions preventing escape from the conflict (Burbach, 1996).

Wynne, Rycroft, Day and Hersch (1958) also focused on communication problems within families with a member suffering from schizophrenia. They described the dynamics within families in terms of 'pseudo mutuality'. The assertion being that family members adhere to the illusion that they all have the same expectations. They proposed that denial of divergent views results in problems within the family. Furthermore, Wynne and Singer (1965) observed four types of communication problems in families with a schizophrenic member: amorphous; fragmented; mixed (a combination

of the previous two); and constricted. In short these terms were considered to constitute a 'transactional thought disorder.' Although communication theories considered factors other than family interactions to be involved in the development of psychosis, (for example genetic factors), these theories fell into dissent. One reason for this was that they were not accepted by the medical world, and were viewed as blaming the family for the development of psychosis in one of its members (Burbach, 1996). However, they stimulated further interest in the role the family plays in the course of schizophrenia. Furthermore, it could be argued that research into expressed emotion developed in response to these original systemic models.

2.1.2 Expressed Emotion in Families

Arguably the most influential contributors to the field of expressed emotion were Brown, Monck and Carstairs (1962). They developed the research measure of Expressed Emotion. Their work identified how different family interactions and emotional factors contributed to relapse in clients suffering from schizophrenia. Family attitudes and behaviour towards the client were derived by analysing taped semi-structured interviews. The concept was embraced by Leff and Vaughn who produced two hugely influential papers describing the relationship between levels of expressed emotion in families and the likelihood of relapse in a relative suffering from schizophrenia. Sub-scales on the measure include indices of hostility, critical comments and emotional over involvement. On the basis of response, relatives are rated as high expressed emotion families (high EE) or low expressed emotion families (low EE).

In brief, the seminal papers demonstrated that there was an association between clients experiencing an increase in positive psychotic symptoms, and their key relatives' expressing markedly critical, hostile or over involved attitudes in interviews. Furthermore, the likelihood of this occurring increased if clients spent more than thirty five hours a week in the relatives' company, and the client was not taking medication. Within high EE families relapse rates varied

dramatically. From 15% within nine months following hospital discharge, if the client was taking medication and had minimal contact with the key relative, to a 92% relapse rate in cases where the client was not taking medication and had high contact with the relative. In contrast, clients living in low EE families who took adequate medication and had low face to face contact with a key relative, had only a 12% chance of relapsing.

Since the original work, many studies have examined the predictive power of EE in determining relapse of psychotic symptoms. Kavanaugh (1992) reviewed twenty six studies investigating the predictive power of EE in terms of relapse. Across studies, the median relapse rate over a nine to twelve month period, was 21% for low EE families and 48% for high EE families. Kavanaugh suggested that EE is as valuable a clinical predictor of relapse, as is failure to take medication.

The majority of clinicians would acknowledge the contribution of EE in the field of psychiatry, but it is not without its critics. Lam (1991) proposed that it remains an empirical concept with unknown theoretical origin. The author holds concerns that families are frequently referred to as 'high EE' or 'low EE' in mental health services and as such it is a stigmatising concept.

Furthermore, like with early systemic formulations of the course of schizophrenia, EE research has similarly been criticised for seemingly blaming the family. To some extent this is does not reflect the proponents (e.g. Brown et al, 1962; Vaughn, 1989) arguments about the concept. Implicit in their work was the recognition that biological factors and responses of the clients were influential in relapse. However, the measure itself is uni-directional, in that it is the behaviour and feelings of relatives alone which are measured.

Kavanaugh (1992) has discussed how interactive models of EE and relapse are superceding original thinking on the matter. He proposed a model which was a variant on the vulnerability stress model (Zubin and Spring, 1977), which took account of clients biological vulnerability,

cognitive processes and skills within a social context. Kavanaugh's (1992) model purported that clients' symptoms may provoke distress, frustration and concern in relatives. Relatives' attempts at coping may be maladaptive, resulting in negative emotions being experienced by the client. Birchwood (1992) asserted that the notion of a developmental dimension to EE, which considers transactional processes which take place, is taking a central position in psychological theorising about relapse in schizophrenia. Unfortunately interactional models which may embrace the experiences and feelings of clients have not been tested.

2.1.3 Do Psychosocial Factors Impact on Levels of Expressed Emotion?

In the previous section the theoretical limitations to the concept of EE were outlined. However, in the absence of alternative standardised ways to measure emotional atmosphere in families, investigators have attempted to examine the differentials which may distinguish these notional groupings.

Literature describing the subjective burden experienced by families who have a member who experiences schizophrenia is ubiquitous. For many families the impact of caring for a member of the family who suffers from schizophrenia can be very distressing. Gibbons, Horn, Powell and Gibbons (1984) conducted a survey which demonstrated that in 90% of households there was evidence of hardship in terms of physical and emotional health. Subjective distress was related to the presence of psychosis and disturbed behaviour. Furthermore, reviews of the area (MacCarthy, 1988) consistently report the impact caring has on the psychological well being and functioning of carers.

It is widely accepted that families who are classified as high EE respond to clients in less adaptive ways, however this says nothing about the experiences of these families. Smith, Birchwood, Cochrane and George (1993) investigated the needs and characteristics of relatives classified as high and low EE. Significant differences were found between the two groups regarding the relatives needs and the behaviours of the client. They found that relatives from high EE households

reported higher levels of disturbed behaviour in the client, subjective burden, and perceived themselves as coping less effectively. Furthermore clients from these households were more socially and interpersonally impaired. The results regarding client differences described here have also been noted in other studies (Barrowclough and Tarrier, 1990). No differences in knowledge about schizophrenia were observed between high and low EE families. However, two thirds of relatives in the high EE group, compared to one third in the low EE group reported needs in all five areas. This study supports the widely held assumption that a range of factors come to bear on the emotional atmosphere of a family. Finally it must be recognised that given that EE may be influenced by ongoing transactions, it may change over time. Thus should not be considered as a family trait.

2.1.4 Summary

There is little debate that family life may significantly impact upon the course of schizophrenia. Earlier systemic theories viewed psychotic phenomena as resulting from the communication deviancy in the family members. This position was viewed as blaming of families and fell out of favour in mainstream psychiatry. However, that family interactions alongside biological factors were implicated in relapse of psychotic symptoms, was embraced by the medical world. Research into expressed emotion, a measurement of the emotional atmosphere in relatives following the relapse of their son or daughter, followed earlier systems theories. The view that levels of expressed emotion in families impacts upon relapse, has been widely supported. However, the concept of expressed emotion has been criticised in recent years, and described as atheoretical. More recent models have been proposed which consider that transactions between a range of factors are involved in the levels of expressed emotion in families. This position has been partially supported by research which has identified the presence of differential needs in families, and characteristics of clients, in groups which were considered to be either low or high EE.

Research detailed so far has been concerned with describing how inter-related factors may be involved in the course of schizophrenia. However, it says nothing of the beliefs relatives hold about the sufferers symptoms and behaviours associated with their mental health problem. Furthermore, it is amazing that this dauntingly vast body of research says nothing about the clients' experience of their symptoms, and indeed their perception of emotional atmosphere. After all it is the clients who relapse in response to the environment. More recently, work has been conducted which investigates the structure of relatives' attributions, which lie behind expressed emotion (Brewin, MacCarthy, Duda and Vaughn (1991). Furthermore, Fernandez (1994) investigated the attributions held by clients to explain their illness. Thus it would seem that Attribution Theory provides an adequate framework to investigate the beliefs of clients and their relatives.

2.2 Attribution Theory - An Overview

Attribution theory has a long and complex history. The review to follow is by no means a complete account of the area, but focuses on aspects of the theory considered to be relevant to the present study.

Broadly speaking, attribution theory describes the processes by which people form causal inferences about observed behaviour. It originates from a number of converging lines of enquiry in social psychology, called 'psychological epistemology', the science of the way in which we 'know' our world. However, attribution theory concentrates on how people gain knowledge about the self and others.

Heider (1944; 1958) is considered the father of attribution theory. His writings proposed that individuals seek to make the world more predictable in order to perceive control over the environment. He described the attribution process as 'naive psychology', the cause-effect analysis of the man in the street. This theory emphasises that it is the human motive to stabilise the environment, which drives us to make cause-effect assignments for events.

Many theories have been proposed which seek to illuminate us to the cognitive processes involved in how we make causal inferences (Weiner, 1986). Festinger (1954) was one of the first researchers to describe one process we engage in when making causal attributions. That is the assessment of whether the cause for an event lies primarily in the environment, or within the person. This observation arose through his investigations into social role comparison. A similar study was carried out by Schachter (1959). He found that in stressful situations we want to associate with others facing the same threatening situation. He proposed that one process involved is the need to evaluate the appropriateness of ones own response by comparing it against the response of others.

Jones and Davis (1965) suggested that when we make attributions, we engage in a process which takes into account our perception of the intention underlying a behaviour. Correspondent inference theory proposes that observers make decisions about the intentionality of an observed action or behaviour. To infer intention suggests that the actor was aware of the consequences of his behaviour. Thus the observer makes the attribution that the behaviour corresponds to an underlying personal disposition or trait in the actor.

Kelley (1967) proposed the theory of covariation. This suggests that underlying causes for effects (behaviours etc.) covary over time. He proposed that this attribution process involves three types of information. The first involves the consistency of information, that is establishing whether the actor consistently exhibits the same behaviour under the same set of circumstances. The second process involves deciding whether other people would act in a similar way in similar circumstances. The third process involves assessing whether the actor makes the same distinctive responses in other situations. On the basis of this information, the perceiver develops causal schema which are based on a knowledge of how different causes interact resulting in an effect. Furthermore, these causal schema are considered to be influenced by the beliefs of society as well as by the experiences of the perceiver.

2.2.1 Defining the Underlying Properties of Causal Attributions

Some of the cognitive processes which are considered to be involved in the attribution process have been described. Furthermore, the discussion has detailed some of the distinctions which have been made between causes. The most fundamental being the person-environment differentiation in causal inference (Heider, 1958). It has been contended (Kelly, 1955) that people think in dichotomous constructs. Although this argument is not settled, more recent empirical investigations have embraced the dichotomous categorisation of causal attributions. Weiner (1986) proposed that in order for causal attributions about events to be compared, it is necessary to define the underlying properties of causes, to facilitate empirical study. So that other relations which contribute to the meaning of the cause may be uncovered. Weiner (1986) proposed that causal attributions can be defined under a few basic causal attribution dimensions.

On reviewing the vast literature in the area of attribution research, and conducting his own analysis to examine the underlying properties of causal attributions, Weiner (1986) proposed that three dimensions existed. As previously stated, the most fundamental distinction was proposed by Heider (1958). He noticed that the causes of actions fell into two categories. Namely factors which reside in the individual (internal) or factors in the environment (external). Weiner (1971) argued for a second causal dimension, reasoning that whilst causes for some behaviours fluctuate, others remain. Hence the stable-unstable dimension was proposed. Rosenbaum (1972) recognised that the other categories did not incorporate evidence of volitional control over an action. Thus the controllable- uncontrollable dimension was proposed.

Stratton , Heard, Hanks, Munton, Brewin and Davidson (1986) considered the three dimensions described above to provide a good basis for the exploration of causal attributions in natural discourse. However, they proposed that existing definitions on the internal-external were tapping into two distinctly different aspects of attributional beliefs, and proposed the need for a personal-

universal dimension. They asserted that this dimension would distinguish between whether a behaviour exhibited by an actor was related to something about their personality (personal), or whether other people would be likely to behave in the same way under a similar set of circumstances (universal).

Furthermore, Stratton et al. (1986) asserted that existing definitions about causal attributions only considered the cause-effect aspects of making an attribution. They proposed that in order to be clear about coding an attributional statement, the link words used between the cause and effect should be taken into account, as they may contain valuable material which would facilitate the rating of a statement. Stratton et al. (1986) developed a detailed coding system for the examination of spontaneously occurring attributions in natural discourse. This was named the Leeds Attributional Coding System (LACS), a modified version was used for the examination of causal attributions in the present study. The LACS is detailed further in the method section.

2.2.2 Causal Attributions - Their Impact on Feelings and Behaviour

Weiner (1986) has stated that the causal ascriptions people give to explain events guide emotions in terms of the magnitude of feeling and impact. Furthermore, he proposed that causal attributions and corresponding emotions are most likely to be instigated after a negative event. This would seem to suggest the importance of establishing the causal attributions held by clients and their relatives, particularly given that by their very nature, symptoms associated with mental health problems could be construed as negative events. Thus likely to evoke causal attributions from clients and their relatives.

Weiner (1986) suggested that different sets of feelings were associated with the different attributional dimensions. Following his analysis of the area he described a range of attribution to emotion linkages. For example, he stated that the emotion of pride is associated with self esteem and linked to the internal-external dimension. Making attributions of control for an event are

linked to feelings of anger, guilt or gratitude. He stated that when an event is deemed uncontrollable the feelings of pity or shame are evoked. Furthermore, feelings of hopelessness have been associated with stable ratings. The proposed links between causal attributions and emotions and behaviour, have been based upon laboratory experiments. However, as conceptual frameworks, provide a way of investigating causal attributions in other settings.

2.2.3 Actor and Observer Differences in Perception

Jones and Nisbett (1972) asserted that the way in which we form causal attributions for events is heavily influenced by whether we are the actor or the observer. They coined the term the actor-observer effect to explain this process. They proposed that actors perceive the causes for their own negative behaviour as being rooted in the environment, as a way to justify blame worthy actions. Whereas observers would be more likely to view negative outcomes as being related to stable attributes of the actor. Thus the actor would view a behaviour as an understandable response to some environmental factor, but the observer would see it as a manifestation of the actors personality.

They propose that one reason for this process is that the information available to the actor and the observer varies. They asserted that differences in information processing between the actor and observer occurs, as different aspects of the information are more or less salient the respective parties. Furthermore, the actor has information about intention which the observer does not. Weary (1978) talked about the 'self serving bias' apparent in this process. Stating that people are far more likely to make self attributions for positive events, and environmental attributions for negative events. He claimed that by taking credit for good acts and denying blame for bad, the self esteem is enhanced and protected.

However, as is true for other aspects of attribution theory, this hypothesis is based on research conducted on non clinical samples. Furthermore, Fincham (1987) has cautioned against applying

this concept to the context of close relationships. In addition to this, the affective state of clients with a psychotic illness may significantly alter the likelihood of them actively seeking to preserve their self-esteem. Thus actor-observer differences will not be investigated.

2.2.4 The Self Perspective

The present research is interested in the causal attributions clients make to explain symptoms associated with their illness. Given that the literature presented so far has described how causal attributions about events or behaviours affect subsequent feelings and behaviour, it is of particular importance to consider what factors may be influential in shaping clients' self perceptions. It is proposed that this will have some bearing on the attributions they give to explain their symptomatology.

Nisbett and Wilson (1977) suggest that we explain our behaviour by reporting our beliefs and theories about it, suggesting that our descriptions and theories lie in the a priori theories which are widely held within a culture. Valins and Nisbett (1987) have talked about the danger inherent in 'popular culture attributions' about so called abnormal behaviour. Thinking about this within the context of mental health, it is of concern that the negative attributions made about people with serious mental illness and other stigmatised groups, may be incorporated into the self perceptions of these people. Clearly attributions which are damaging to oneself may arise through interpretations we make about other people's negative behaviour towards us.

Hampson (1988) discussed theories of self perception proposed by the symbolic interactionist school of thought. The 'symbolic' part of the term refers the assumption that we live in a world full of objects that have social meanings. 'Interactionism' refers to the fact that we communicate with each other via symbols, and in order to do this we must take on another persons' perception of the world. In terms of self perception, the theory proposes that our self perceptions are based on the way in which we perceive others to see us. If this model is applied to families, it could be

hypothesised that if a client perceives a relative to feel negatively about them, then this will adversely affect the way in which the client perceives themselves. Moreover, this could then shape the attributions clients make about their mental health problems, and thereby affect feelings and behaviour. Taking this line of thought one stage further, it could be hypothesised that within families, there may be similarities in beliefs about the causes of the illness symptoms.

2.2.5 Summary

The area of attribution research has been concerned with investigating the way in which individuals attempt to assign causes to explain their own behaviour and that of others. Attribution theory provides a framework for the systematic analysis of causal beliefs. In the present study causal attributions will be investigated utilising the following attributional dimensions: Internal-External; Personal-Universal; Controllable-Uncontrollable; Stable-Unstable. It has been proposed that causal ascriptions people make for events guide feelings and behaviour. Furthermore, negative events are more likely to evoke spontaneous causal attributions. Given that symptoms associated with schizophrenia are generally viewed as being undesirable, it is proposed that methodology eliciting spontaneous causal attributions will be appropriate for the present study.

The nature of causal attributions which clients make to explain their symptoms may be influenced by their self perception. For example, holding negative views about themselves may influence the causal attributions they make, thus affecting their feelings. Self perception may be a result of how we perceive others to perceive us. Hence clients' views of their relatives' perception of them, may be influential in the attributions clients make to explain their illness. Although the framework of attribution theory cannot explain the complexities of human behaviour, it provides a structure for investigating other concepts in relation to causal attributions.

2.3 Families' Causal Attributions about Symptoms Associated with Mental Illness

The relationship between levels of Expressed Emotion in the family and relapse in schizophrenia has been supported in the literature (Leff and Vaughn, 1985). Furthermore, research in the field of Attribution Theory proposes that there are strong links between causal ascriptions for events and the resulting feelings and behaviour (e.g. Weiner, 1986). Thus it may be the case that the beliefs relatives hold about their family member's mental illness, may be related to the emotional atmosphere of the family.

Several researchers have suggested that if relatives attribute the manifestations of the illness to the person rather than the illness itself, this will lead to the expression of high levels of expressed emotion (Leff and Vaughn, 1985; Hooley, Richters, Weintraub and Neale, 1987). Hooley et al. (1987) investigated factors affecting marital satisfaction in spouses of people suffering from schizophrenia. They proposed that spouses would blame the clients for symptoms they attributed to volitional control, and blame the illness for symptoms they considered to be out of the clients' control. Furthermore, they suggested that spouses would consider negative symptoms and behavioural problems to be more controllable than positive symptoms. Their findings indicated that lower levels of marital satisfaction were associated with clients exhibiting negative symptoms and behavioural problems, and higher satisfaction was associated with positive symptoms. Although data on perceived controllability was not collected, they concluded that marital satisfaction was associated with the volitional control the spouses perceived the client to have over symptoms.

Brewin, MacCarthy, Duda and Vaughn (1991) recognised that the literature in the area of Expressed Emotion had little to say about the origins and correlates of the emotional characteristics of families classified as high and low EE. Thus they sought to investigate the beliefs which relatives held about the causes of clients' illness, behaviour and associated symptoms. They obtained the transcripts of fifty eight relatives whose EE status had previously been established. Causal

attributions were then extracted using a modified version of 'The Leeds Attributional Coding System' (Stratton et al., 1986; 1988).

They found that relatives made a substantial number of spontaneous causal attributions about clients' symptoms and behaviour. Overall, relatives considered recent symptoms to be internal, universal, unstable and uncontrollable with regard to the client. However, this varied considerably depending on whether they were talking about the illness itself or other manifestations like negative symptoms, behavioural problems or interpersonal difficulties. Interpersonal difficulties were associated with relatives making stable attributions, and behavioural problems were linked to relatives making more controllable attributions. Furthermore, making personal and controllable attributions was associated with greater hostility and criticism. This would support the view proposed by Weiner (1986) which suggests that perceiving a negative outcome to be controllable and personal evokes angry feelings, and beliefs about intentionality. This study represented a first attempt to systematically investigate the relationship between expressed emotion in relatives and underlying causal attributions.

Barrowclough, Johnston, and Tarrier (1994) further examined the nature of causal attributions which relatives made regarding negative events associated with the clients' illness. Again it was found that there were differences in the nature of causal attributions made by high and low EE relatives. However, they also found that within the high EE group, differences existed in the structure of beliefs relatives held. They found that relatives who were predominantly high on the Expressed Over Involvement (EOI) indices, held similar beliefs to low EE relatives. They attributed symptoms associated with the illness to factors which were external and uncontrollable to the client. High EE relatives who scored high on the Critical indices of the expressed emotion interview, tended to make attributions which were more internal to the client. Relatives who were marked by their hostility towards the client, perceived the causes of symptoms to be related to the

clients' personality, and to factors which were controllable by the client. This study also found that the causal attributions which relatives made were more predictive of relapse than the relatives' EE status.

These findings mark a progression from viewing the emotional atmosphere within families , in terms of high or low EE, to looking at the attributions which lie behind EE. Tarrier (1996) asserted that these findings have the potential to strongly influence the family management of schizophrenia movement. Clearly, it is clients who experience the outcome of their relatives' causal attributions about their illness symptoms. Furthermore, it could be postulated that relatives' beliefs may influence the beliefs which clients hold about their illness. However, consulting clients about their beliefs about their illness has been a neglected area in research (Liddle and MacCarthy, 1994; Fernanadez, 1994).

2.4 Clients' Experiences of their Mental Health Problems

It is remarkable that much of the research which is held in academic esteem in the area of schizophrenia, has concentrated on relatives' views about the illness. Cutting (1989) commented that the neglect may in part be related to concerns about the reliability of information given by clients. However, several authors have deemed this position to be unfounded. For example Cutting (1989) found that clients in remission of their illness gave reliable retrospective accounts of their subjective experience of symptoms. Liddle and MacCarthy (1994), have also supported the view that clients with a psychotic illness are able to show insight into their experience.

What is also of interest is that the active movement towards treating clients' psychotic symptoms psychologically on an individual level (e.g. Haddock and Slade, 1996), has not been accompanied by a movement to consider clients' beliefs about the causes of their illness within a family context. The main driving force in both clinical practice and research has been to study relatives' beliefs about the illness, separately from clients' experiences of psychosis.

Lebell , Marder, Mintz et al. (1993) noticed that clients' perceptions of family atmosphere have been neglected to a large extent. Furthermore, they commented that in studies which have addressed this issue, assessments used have been indirect indicators of the clients' relationship with their relative. They therefore developed a measure to assess clients' attitudes towards a key relative, and their perception of that relative's attitudes towards them (The Lebell Scales). Thirty nine male outpatients and their relatives took part in the study. They found that clients' perceptions of their key relatives' attitudes towards them, was highly correlated with their relatives' real attitudes towards them. Relatives' attitudes were measured by the Patient Rejection Scale (Kreisman, Simmons and Joy, 1979). Lebell et al. (1993) also found that clients' ratings on the Lebell Scales was predictive of psychotic exacerbation at one year follow-up. They emphasised the need to evaluate clients' attitudes towards their relatives in studies investigating family factors associated with schizophrenia. What is of interest is that this finding lends some support to the symbolic interactionism position, which suggests that we can accurately perceive other peoples' perception of us (Hampson, 1988).

It would appear that clients' perception of others views of them is important in influencing symptom exacerbation . Could clients' perception of their relationship with a key relative also influence their affective state more generally ?

Siris (1991) has noted that people with schizophrenia frequently experience high levels of depression. Birchwood, Mason, MacMillan and Healey (1993) investigated the possible psychological factors involved in this process. They compared depressed and non-depressed clients who had schizophrenia, and found that clients' perception of controllability discriminated the groups. Depressed clients viewed illness symptoms as significantly less controllable than clients who were not depressed. They suggested that clients' self concept may be damaged if they perceive their experiences to be uncontrollable. Furthermore, Birchwood et al. (1993) proposed

that depressed clients may also view the illness as something personal to them, and see it as a chronic long term illness. Clients' causal attributions about their illness were not directly assessed in Birchwood et al's (1993) study, but one could hypothesise that depressed clients are more likely to make personal, stable and uncontrollable attributions about their illness symptoms.

2.4.1 Summary

Progress has been made regarding investigations into the causal attributions relatives hold about the causes of clients' illness, and how causal attributions may be influential in determining family atmosphere. However, the examination of clients' subjective experience of symptoms associated with schizophrenia has been neglected, possibly due to concerns that clients may not reliably report their experiences. Studies which have investigated clients subjective experience of their illness have proved these concerns unfounded. Furthermore, when clients' experiences have been investigated the results have proven to be important. For example, it is indicated that clients' perception of key relatives' attitudes towards them is predictive of relapse. The importance of gaining clients' insights into relationships within the family is clear. Studies examining the differences between depressed and non-depressed in clients with schizophrenia, have reported that clients' beliefs about their illness may be influential in determining whether or not they become depressed. Given that many clients live within families, it could be argued that relatives' beliefs about the illness could influence clients' beliefs about their illness, thus have implications for clients' mental health.

2.5 The Present Study

In the present study the causal attributions which clients and relatives hold to explain the symptoms associated with psychosis will be investigated. Research in the area of expressed emotion (Leff and Vaughn, 1985), has highlighted the role of family emotional atmosphere in affecting clients' mental health. More recent research in the area has been concerned with the attributions underlying the emotional atmosphere in the family (Brewin et al., 1991; Barrowclough et al., 1994). Furthermore,

causal attributions held by relatives to explain the illness are viewed as important indicators of relapse in clients (Barrowclough et al., 1994). The Leeds Attributional Coding System (Stratton et al., 1986) was used to investigate causal attributions held by relatives in these studies. The present study will adopt this methodology. Furthermore, the attributions held by clients will be investigated, as published research describing their beliefs about the illness is minimal.

Research detailed above, has found that the nature of attributions made, varies according to symptom. Behavioural problems are regarded as most controllable. Weiner (1986) has proposed that causal attributions which are made to explain negative events, are likely to evoke different feelings depending upon the attribution made. If negative events are considered to be caused by personal characteristics, and volitional control is assumed, the emotional response will be anger on the part of the observer. The present study will investigate whether the structure of participants' causal attributions varies depending upon the type of symptom under investigation. Symptoms to be investigated include: positive psychotic symptoms; negative symptoms; and behavioural problems. In addition the relationship between clients' and relatives' causal attributions will be investigated as it is proposed that family members will share similar beliefs.

The symbolic interaction school proposes that our self perception is determined by how we perceive others to see us (Hampson, 1988). If this be the case, one could hypothesise that clients' perceptions of themselves may be affected by their perception of key relatives' views towards them. Birchwood et al. (1993), have talked about the co-existence of depression and psychosis. The present study will examine whether depression in clients is related to their perception of a key relatives' thoughts and feelings towards them. The Lebell Scales (Lebell et al., 1993) will be used as they have proven to be useful indicators of clients' relationships with their key relatives.

Furthermore, it has been hypothesised that feelings of hopelessness and depression in clients may be linked to them viewing their illness as uncontrollable, personal to them, and a chronic condition

(Birchwood et al., 1993). Therefore levels of depression in clients will be investigated in relation to these causal attributional dimensions.

There is evidence to suggest that the needs of relatives classified as high or low EE (Smith et al., 1993) differ, with high EE relatives reporting higher burden, and having greater needs in five areas detailed in the study. One of the areas of need was 'knowledge about schizophrenia'. The present study will investigate whether levels of distress, as measured by the family distress scale (Smith et al., 1993), are related to knowledge about schizophrenia as measured by the Knowledge About Schizophrenia Questionnaire (Smith and Birchwood, 1987). The relationship between clients' knowledge about schizophrenia, and relatives' knowledge about schizophrenia will be examined.

The present study will also qualitatively investigate the beliefs of one client-relative pair. The hypotheses to follow are presented in the null form, as this area of research is relatively new and exploratory. Therefore, predictions will not be made.

2.5.1 Hypothesis One: (Null)

For clients data, in each of the Causal Attribution dimensions there will be no significant differences between the following Symptomatic Categories: Positive Symptoms; Negative Symptoms; Behavioural Problems.

2.5.2 Hypothesis Two : (Null)

There will be no relationship between levels of Depression in clients, and Causal Attributions about symptoms being more Stable, Personal, and Uncontrollable.

2.5.3 Hypothesis Three: (Null)

There will be no relationship between clients' feelings and thoughts towards their named relatives (as measured by Lebell A) and clients' perception of their named relatives feelings and thoughts towards them (Lebell B).

2.5.4 Hypothesis Four : (Null)

There will be no relationship between clients' perception of their named relatives feelings and thoughts towards them (Lebell B), and levels of Depression (BDI).

2.5.5 Hypothesis Five : (Null)

For relative data, in each of the Causal Attribution dimensions there will be no significant differences between the following Symptomatic Categories: Positive Symptoms; Negative Symptoms; Behavioural Problems.

2.5.6 Hypothesis Six : (Null)

There will be no relationship between relatives' scores on the Knowledge About Schizophrenia Questionnaire, and levels of distress as measured by the Family Distress Scale.

2.5.7 Hypothesis Seven : (Null)

There will be no relationship between relatives' and clients' Knowledge about Schizophrenia, as measured by the Knowledge about Schizophrenia Questionnaires.

2.5.8 Hypothesis Eight : (Null)

There will be no relationship between relatives' Causal Attributions about the illness and clients' Causal Attributions about the illness.

Qualitative analysis will be carried out on the interviews carried out with one patient and one carer. The content of their attributions will be examined.

3. METHOD

3.1 Design

The same design was employed to investigate data pertaining to client information and data connected with relative information. The methodology employed was cross sectional correlational, and comparative.

Furthermore, the relationship between client and relative data was examined using a between related groups design. In this part of the study, scores obtained from client data on different variables were paired with scores obtained from key relatives, and correlational analysis was undertaken.

3.2 Participants

3.2.1 Inclusion Criteria

The inclusion criteria for clients for participation were as follows: males between the ages of 18-50, who had a diagnosis of Schizophrenia and were living in the community. Furthermore, clients needed to be in contact with their key relative at least once a fortnight. Clients who were deemed to be acutely unwell or whose illness was organic in nature, were not considered.

Key relatives, as defined by the client, met inclusion criteria if they had regular contact with the client and were not themselves experiencing a major mental health problem. Moreover, relatives were only contacted if permission had been gained from the client, and contact was not considered inappropriate in the opinion of the client's keyworker.

3.2.2 Description of Samples

Two groups of participants were included in this study, namely clients and their relatives. For clients, the sample size was 18, and for relatives it was 11. Hence 11 client - relative pairs. All clients were male with a diagnosis of schizophrenia. The age range for the clients group was 21-50,

with a mean age of 34 and the median age was 35 (s.d. 9.11 years). In the relatives' sample there were 8 mothers and 3 fathers.

Clients' living arrangements were as follows: 10 clients were living with their relatives; 5 were living in supported accommodation, and 3 held their own tenancies for flats. When this was broken down into the living arrangements of the 11 client-relative pairs, it was evident that 9 clients were living with their relatives, 1 client was living in his own flat, and 1 client was living in supported accommodation.

3.3 Measures

3.3.1 Development of the Research Interviews

It has been claimed that interviewing clients about their mental health problems (Fernandez, 1994) or relatives about their beliefs about a client's mental illness (Brewin et al, 1991), leads to the spontaneous expression of Causal Attributions about those experiences. In the present study the researcher designed interviews which would facilitate the expression of Causal Attributions in relatives and clients.

Clients' Version

The initial format was piloted on two participants. This enabled the researcher to gain familiarity with the interview, and establish whether the schedule facilitated the expression of Causal Attributions about symptoms. In the initial interview schedule, clients were asked generally to talk about their beliefs about their 'mental health problems'. The pilot study revealed that clients did not necessarily describe specific symptoms related to their illness and highlighted the need to enquire more directly about specific symptoms. Thus modifications were made to the interview schedule as a consequence of the preliminary interviews. The revised interview schedule (Appendix 1), systematically enquired about positive symptoms, negative symptoms and behavioural problems, which the client may have experienced. This was in line with the research hypotheses which sought

to enquire about Causal Beliefs regarding Symptoms and Behaviours experienced and exhibited by the client. The final interview was intended to be flexible enough to enable clients to express their experiences and beliefs, but focused in a way which facilitated discussion about areas pertinent to the study.

The interview commenced by asking clients to give demographic information. Furthermore, details regarding daytime activity, sleeping patterns and frequency of contact with a key relative were elicited. Clients were then asked questions which specifically addressed their beliefs about the onset of their mental health problems, and associated symptomatology. To facilitate discussion, initially clients were invited to describe events surrounding the onset of their mental health problems. This was intentionally very open ended in nature. The aim being to enable participants to feel listened to, and deepen rapport. Any specific symptoms mentioned at this stage, were picked up and explored at a later stage in the interview.

The next stage of the interview was designed to elicit the types of symptoms clients had experienced previously and more recently, and to facilitate the expression of their Causal Beliefs about those symptoms. This was achieved by the researcher describing the kinds of symptoms and behaviours traditionally associated with having a diagnosis of schizophrenia, and asking whether the participant had experienced such symptoms. Specific symptoms and behaviours which had been mentioned by the client earlier in the interview were examined further, to elicit Causal Attributions. Finally, clients were asked to give their beliefs about the initial cause of their mental illness.

Relatives' Version

The format of the relatives' Interview (Appendix 2) closely mirrored that of the 'Clients' Interview' (Appendix 1). It was designed to elicit background information to corroborate that given by the client, and to uncover the relative's Causal Beliefs about the symptoms and behaviours

exhibited by the client. Furthermore, relatives' understanding about schizophrenia and beliefs about the cause of the illness was examined.

3.3.2 The Leeds Attributional Coding System

Development of the LACS-An Historical Context

Attributional statements were extracted from transcripts using a modified version of the Leeds Attributional Coding System (LACS) (Stratton, Heard, Hanks, Munton, Brewin & Davidson, 1986; Stratton, Munton, Hanks, Heard & Davidson, 1988). Stratton et al. (1986), stated that established techniques offered a method for examining the structure of causal attributions for events, by classifying them under a number of dimensions. These included deciding whether a stated cause for an event was: Internal - External; Stable - Unstable; Global - Specific; Controllable - Uncontrollable. However, they asserted that existing definitions on the Internal-External dimension were tapping into two distinctly different aspects of attributional beliefs. Namely, (i) whether the outcome was the result of something the person being discussed did, as opposed to something which happened to him; or (ii) whether the attribution being made tells us something unique about the person being discussed. Therefore the expanded LACS introduced a second Internal - External dimension, labelled Personal-Universal.

Methods of rating attributional statements which came before the LACS, were concerned with the relationship between cause and effect, however Stratton et al. (1986) noted that there was considerable scope for confusion as there was no clarity in explaining how decisions would be made across dimensions. To address this difficulty the LACS provides definitions of dimensions which distinguish the precise role of the cause, the event and the link between them.

Reliability and Validity of the LACS

Stratton et al., (1986), examined the usefulness of the LACS, by investigating its reliability, validity and potential for generating data. Acceptable levels of inter rater reliability were reported for both

the extraction and coding of dimensions . All kappas were significant at the .0001 level, with the exception of the Global - Specific dimension which achieved inter rater reliability at the .0013 level. With regard to the amount of data generated, they claimed that the quantity of agreed statements exceeded the amount which would be generated using an attributional style questionnaire. Stratton et al. (1986, 1988) claimed construct validity for the LACS as the actor observer differences predicted in the literature on Attribution Theory were supported, and correlations between dimensions were in the directions predicted by the literature.

The modification of the LACS for studies of schizophrenia

The extraction and coding of causal attributions from interview data in the present study, was based on a slightly modified version of the LACS. Brewin (1988) adapted the LACS (Appendix 3) to facilitate the extraction and coding of attributions regarding the Symptoms and Behaviours associated with clients who have a diagnosis of schizophrenia. Brewin, MacCarthy, Duda and Vaughn (1991), described the application of the LACS to the analysis of the patterns of attributions underlying different levels of expressed emotion in relatives of clients with a diagnosis of schizophrenia. Brewin et al. (1991), demonstrated the reliability of extraction of attributional statements. The proportion of statements correctly identified by two independent raters, was 0.7.

Application of LACS to the present study

In line with the modified version of the LACS by Brewin et al, 1991 (Appendix 3), in the current study, Causal Attributions were defined as statements which made direct reference to events (to be referred to as Symptoms or Behaviours in the present study) or class of events about which the speaker gave, explored or inferred a cause or reason. Thus extracted Causal Attributional Statements referred to a Symptom or Behaviour, for which there was a stated or inferred reason. Only Causal Attributions referring to the onset or exacerbation of illness, or residual Symptoms or Behaviours associated with the clients' mental health problems were extracted for coding. Beliefs and assumptions currently held by the speaker regarding the manifestation of the client's illness

were included. Causal Attributions which were no longer held, or were questioned by the participant were excluded. So too were Causal Attributions which referred to hypothetical events, and Causal Beliefs which the speaker described as being held by someone else.

Causal Attributional Statements may have contained one or more explanations for the occurrence of a Symptom or Behaviour, and may have been punctuated with Non Causal material. If the same Causal Attribution was spontaneously reported for the same Symptom or Behaviour at a different point in the interview, it was coded as a new Causal Attributional Statement. However, this was only in cases where there had been a complete change in interview content, and was not in response to follow-up questions by the researcher.

Coding of Causal Attributions about Symptoms and Behaviours

Each Causal Attributional Statement was coded on a three point scale based on guidelines outlined by Brewin (1988). Causal Attributional Statements about Symptoms and Behaviours were each classified into the following four Causal Attributional Dimensions:

Internal (1) - External (3)

If the cause which was given by the speaker for the occurrence of a Symptom or Behaviour, was concerned with some feature of the person being rated e.g. " I think his delusions are to do with a brain defect", then an Internal rating would be given. Alternately, if the cause of a Symptom/Behaviour was viewed as being related to a condition in the outside world e.g. " He got the voices back after he was broken in to", then the rating would be External. Causes which were specified, rather than links or the nature of the Symptom/Behaviour, were the focus of rating on this dimension.

Personal (1) - Universal (3)

On this dimension, if a judgement was made that a Symptom/Behaviour occurred as a result of something personal to the client e.g. " He 's always been one to stomp around, because he's jealous

of his brother", then a Personal rating would be given. If there was an indication that the speaker regarded the Symptom or Behaviour to be an understandable response for people with schizophrenia, given the situation e.g. " I couldn't help smashing the door, I was ill at the time", then the rating would be Universal. Causes about a Symptom/Behaviour and links were considered when rating this dimension.

Stable (1) - Unstable (3)

If the speaker implied that the cause for a Symptom/Behaviour would be likely to reoccur again given a similar situation, e.g. " He always gets paranoid when the children play outside" the cause would be viewed as Stable. Alternatively, if the speaker suggested that the cause behind a Symptom/Behaviour would lead to that Symptom/Behaviour half the time or less given similar circumstances, e.g. " Occasionally I hear voices when I'm alone, but not often", then the cause would be considered Unstable. Hence for this dimension, the stability of the cause and the link must be considered.

Controllable (1) - Uncontrollable (3)

If in the speakers view, the Symptom/Behaviour was readily controllable, e.g. " I wanted to annoy her because she likes it really", then the rating would be Controllable. If it was the speakers belief that in the absence of exceptional effort the Symptom/Behaviour was implacable, e.g. "Its because of a chemical imbalance that he gets these ideas", then the rating would be Uncontrollable. For this dimension ratings were based primarily on the nature of the Symptoms/Behaviours, but on the cause, if there was evidence in the Causal Attributional Statement to suggest the level of control over the cause. Participants were asked directly about their beliefs about the level of control the client exercised over different Symptoms/Behaviours. This minimised the likelihood of uncertainty when rating Causal Attributional Statements on this dimension.

In addition to the binary system described above, a coding of 2 denoted that within one Causal Attribution Statement, causal factors at opposite ends of a dimension were mentioned (MacCarthy, 1996, pers com). For example " He must have something wrong with his brain (Internal), but then again the fire didn't help the situation" (External). In this example both ends of the Internal-External dimension were mentioned within the same Causal Attributional Statement, hence a rating of 2 would be given on this dimension for this statement. A code of 9 was given if there was insufficient or ambiguous material.

Brewin et al. (1991) achieved high levels of inter rater reliability (kappas significant at .00001), for the Causal Attribution Dimensions listed above.

Symptomatic Categories in the Present Study

Symptoms or Behaviours were classified into the following categories:

- **Positive Psychotic Symptoms (Category 1)**

including hallucinations; delusions and thought disorder etc.

- **Negative Symptoms (Category 2)**

these symptoms include affective flattening and avolition., and they are characterised by social withdrawal, poor self care etc.

- **Behavioural Problems (Category 3).**

difficulties may include behaviours which are threatening to the client or others, violence, swearing, and antisocial behaviour.

The defining features of the Symptom Categories were informed by 'The Diagnostic and Statistical Manual IV' (DSMIV). Given that different numbers of Attributional Statements were generated across interviews, the material was summarised for analysis. A mean rating for each Causal

Attributional Dimension, within each Symptom Category was calculated for each participant. In addition, an 'Overall' or 'Global' score was calculated for each Causal Attributional Dimension, by totalling the Causal Attributional Scores on each Causal Attribution Dimension for the three Symptom Categories combined, and dividing by the total number of Causal Attributions.

Inter Rater Reliability

An independent rater who agreed to co-code three randomly selected interviews, was given the modified version of the LACS manual as outlined above (Brewin, 1988). Detailed discussions between the researcher and independent rater took place, in order to clarify aspects of the coding system which were unclear to the independent rater. The reliability of the coding of the Causal Attributional Dimensions was examined. Table 1 illustrates the levels of agreement between raters.

Table 1: Percentage Agreement Between Researcher and Co-coder

Attribution Dimension	Interview One	Interview Two	Interview Three	Mean Agreement
Internal - External	85.6%	94.7%	90.9%	90.7%
Personal - Universal	100%	73.6%	81.8%	83.3%
Controllable - Uncontrollable	92.3%	84.2%	86.0%	85.1%
Stable - Unstable	85.6%	89.4%	86.3%	87.0%

Following discussion, agreement was reached between the researcher and co-coder for discrepant ratings.

3.3.3 Knowledge Questionnaires

Clients' knowledge and understanding of schizophrenia was examined using the clients' version of 'The Knowledge about Schizophrenia Questionnaire' (Appendix 4) devised by Smith and Birchwood, 1987. For relatives, the parallel version of the measure was used (Appendix 5). Obvious differences between these measures are that specific items in the respective questionnaires are geared to either a sufferer or carer. However, in the main, the items are the same. Standardisation of the measure is referred to in Smith and Birchwood (1993). However, details

regarding the development and piloting the of the measure were not available. Both questionnaires are concerned with the following areas in relation to knowledge about schizophrenia: demography; aetiology; symptoms; treatment; hospital procedures and coping. This particular measure was chosen as it covered a comprehensive range of questions and appeared to have good face validity. Furthermore, it was developed and has been used widely to assess knowledge about schizophrenia (Smith, 1996, pers com), by two of the country's most eminent researchers in the field of family education about psychosis. The clients' version yields a total knowledge score of thirty eight; the relatives' questionnaire gives a total knowledge score of thirty nine.

3.3.4 Family Distress Scale

Subjective burden experienced by relatives of clients with Schizophrenia, was assessed using an expanded version of the Family Distress Scale, which was originally developed by Pasamanick, Scarpitti, and Dinitz (1967). Smith and Birchwood (1993) modified this scale (Appendix 6). It includes a range of possible family hardships and consequences associated with having a relative with schizophrenia. The measure requires that relatives rate the client's behaviour on a 4-point scale. The measure was chosen as it covers a range of possible subjective negative experiences which a relative may encounter. It comprises forty six items which give a total distress score. In addition, it includes five subscales which assess the following areas: burden (16 items); worry (4 items); fear (5 items); stigma (7 items); and impact (14 items).

The standardisation of the measure is referred to in Smith and Birchwood (1993), but the psychometric properties are not published. Personal communication with Smith (1996), revealed that the psychometric properties of the measure had been established. However, information detailing this had been lost during a move to another department. Hence it was not been possible to obtain published information confirming the usefulness of this measure.

3.3.5 Lebell Scales

This measure (Appendix 7) was developed by Lebell (1993), to explore clients' perception of their relationship with a named relative. The measure was administered by: (i) asking clients to rate their thoughts and feelings towards a key relative; and (ii) asking clients to rate their perception of the relative's thoughts and feelings towards them. The following 5-point likert scale was used for parts (i) and (ii). A rating of (5) represented 'mostly very strong positive feelings and thoughts; (4) 'mostly moderate positive feelings and thoughts'; (3) 'about equally mixed positive feelings and thoughts; (2) 'mostly moderate negative feelings and thoughts'; (1) 'mostly very strong negative feelings and thoughts'.

Lebell (1993) reported that the predictive validity of the measure was suggested, in that clients' ratings were predictive of an exacerbation in psychotic symptoms in the following year. Furthermore, concurrent validity had been indicated, as scores on the measure were highly correlated with relatives' attitudes and feelings towards the client, as measured by the Patient Rejection Scale (Kreisman, 1979). This measure was chosen for use in present study, as it is brief and is not too demanding of clients, and could readily be woven into the interview schedule.

3.3.6 Beck Depression Inventory

Severity of depression was assessed using the revised Beck Depression Inventory (BDI) (Beck, Rush, Shaw and Emery, 1979). This is a 21-item instrument designed to assess the severity of depression in psychiatrically diagnosed clients (Appendix 8). Each item consists of 4 statements rated 0,1,2,or 3. In the present study a self administration method was adopted. The guidelines for administration outlined by Beck and Steers (1993), were followed.

The psychometric properties of the BDI have been widely reviewed (Beck and Steers, 1993). The validity of the BDI has been examined across a range of dimensions. Content validity of the BDI was investigated by Moran and Lambert (1983) compared the revised BDI's content with that of

the DSM-III Affective Disorder criteria. They found that the BDI reflected six of the nine DSM-III criteria. The construct validity of the BDI has been reported. For example hopelessness, as measured by the Beck Hopelessness Scale (Beck and Steer, 1988), was positively correlated with the revised BDI scores in six normative samples.

Beck, Steer, and Garbin (1988), reported significant correlations between the BDI and selected concurrent measures of depression across a number of studies. For example, when correlated with the Hamilton Psychiatric Rating Scale for Depression (Hamilton, 1960), the correlation coefficient between the two measures was beyond the .001 level of significance. Finally, the factorial validity of the BDI has been examined by Clark, Cavanaugh, and Gibbons (1983). They reported that the BDI represents three different underlying syndromes of depression, which could be separated into three interrelated factors. These are cognitive affective, performance and somatic complaints.

The BDI was chosen as it has been widely used in research, thus provides coherence when considering the current study in relation to the literature. Furthermore, it has become one of the most widely accepted measures of depression in clinical psychology and psychiatry (Piotrosky, Sherry and Keller, 1985).

The BDI is scored by summing ratings on each of the 21 items, yielding a maximum score of 63. The cut off scores for estimating severity of depression are as follows: scores from 0-9 are considered to be within the minimal range; scores from 10-16 are considered to suggest mild depression; scores between 17-29 are deemed to indicate moderate depression, and any score between 30-63 indicates severe depression.

3.4 Procedure

3.4.1 *Recruitment of Participants*

The main source of recruitment for the study was from a multidisciplinary Community Rehabilitation Outreach Team. The focus of the Team was to work with clients experiencing severe and enduring mental health problems, using an assertive case management approach to intervention. The author was part of this Team whilst conducting the research. The research protocol was presented at a meeting and ethical considerations were discussed. Emphasis was placed on inviting key workers to refer clients to the study, only if they considered that the experience would not be detrimental to the clients' mental health. A total of twenty three participants were successfully recruited from this source, fifteen clients and eight relatives. A further fourteen clients were referred from this source, but it proved impossible or inappropriate to include these clients for the following reasons:

- two clients relapsed prior to meeting with the researcher
- the researcher was involved clinically with two clients
- one client was an inpatient at point of referral
- two clients did not believe they had a mental health problem, hence it would be unethical to approach
- one client moved out of the area
- two clients changed their mind about participating prior to meeting
- four clients were unable to meet with the researcher prior to the end of the data collection phase.

A second source of participants was from a community medication clinic. Having gained permission from the Team Manager, the research protocol was outlined to the nurses running the clinic. Clients whom they considered to be suitable potential participants were referred. This source yielded two clients and two relatives. A final source came from a hospital occupational therapy out client department. The researcher described the project to head of the service, in the manner described previously. One client and one relative took part in the study from this source. From these secondary sources an additional three clients had been referred but decided they did not wish to participate following an initial meeting.

A presentation was made to a team of community psychiatric nurses, but this source did not yield any referrals. At this time it was drawn to the authors attention that a piece of well funded medically orientated research was being conducted by a Psychiatrist, and potential participants may have been recruited to that project. It was considered unethical to have sought to recruit this group of clients, as they may have participated in two projects within a short period of time.

The main features of the study were outlined to clients by workers known to them. If clients then expressed an interest in finding out more information, an introductory meeting was planned between the potential participant and researcher. When requested by the client, this involved the client's key worker being present. In other instances the researcher made contact via telephone and arranged an initial meeting to take place between the researcher and client directly.

3.4.2 Initial Briefing Given to Clients

Introductory meetings were arranged between participant and researcher. Decisions about place of initial face to face contact was based on clients' preference, and included the following locations: a drop in social club; a medication clinic; the hospital occupational therapy outclient department, and clients' homes.

The study was outlined verbally to clients, and they were given the 'clients' Information Sheet' to read (Appendix 9). The researcher clarified any areas of confusion regarding any aspect of the study, and participants were encouraged to ask questions. Issues of confidentiality were emphasised, and participants were informed of the rationale for taping the interview, but their right to refuse permission for recording was highlighted. It was explained that recordings would be erased following transcription. Clients' attention was drawn to the nature of the research, and they were asked whether they would give permission for a relative to be contacted. If they considered this to be appropriate, details about a key relative as defined by the client were recorded, so that contact could be made.

If clients remained interested in taking part in the study, a location for the research interview to take place was arranged. Clients who permitted the researcher to contact a relative, informed their relative about the study and the researcher made contact by phone and an information sheet was sent (Appendix 10). If relatives were willing to participate, a meeting was arranged.

3.4.3 Format of Research Interview with Clients

Fourteen clients were interviewed in their own homes, and four clients were interviewed in mental health clinics in the community. Prior to commencing the interviews, participants' attention was drawn to the information sheet which they had received in the introductory session, and they were asked whether they wished for further clarification of any aspect of the study. Issues regarding confidentiality were emphasised again. Participants completed the informed consent forms (Appendix 11) before the interview commenced. The research interview lasted between 35 minutes to 1 hour.

Following on from the interview, measures were administered. Clients were given a choice as to whether or not they wanted to complete the questionnaires. Participants were administered a measure to investigate their perception of the quality of their relationship with a key relative (Lebell

Scales, 1993; Appendix 7). To have administered the scale earlier in the interview may have been premature, as the depth of rapport between researcher and participant may not have been sufficient at an earlier point.

The BDI, a measure of depression was then administered (Beck, 1979; Appendix 8). Clients were then given 'The Knowledge about Schizophrenia Questionnaire' (Smith and Birchwood, 1987; Appendix 4). All clients chose to take the questionnaire away for completion. It was emphasised that it was their knowledge and not that of another person, which was of interest.

3.4.4 Briefing and Format of Meeting with Relatives

Relatives were contacted about the study if permission had been gained from the client, at the introductory meeting stage. Where possible this involved telephone contact and sending the 'Relatives' Information Sheet' (Appendix 10). If they agreed to take part, a meeting was arranged. In all cases, relatives requested meetings to take place at their homes. The study was outlined in the manner described for the clients' interview. The informed consent sheet was signed prior to commencing the interview.

Following on from the interview, relatives were asked to complete a 'Knowledge About Schizophrenia Questionnaire' (Smith and Birchwood, 1987; Appendix 5), and a 'Family Distress Scale' (Smith and Birchwood, 1993). Questionnaires were given at the end of the interview as it may have detracted from the interview had they been given sooner. Relatives were given the option to complete them at the end of the interview, or to post them on to the researcher in a pre paid envelop. In every instance they chose to post them on later.

3.4.5 De-briefing Offered to Participants

All participants were offered the opportunity to discuss any issues which may have arisen as a consequence of taking part in the interview. They were asked directly how it had felt to discuss

issues related to their own mental health (in the case of clients), or that of their relative (in the case of relatives). It was acknowledged by the researcher that the nature of the conversations may have been difficult. The length of time allocated to interviews was decided upon with de-briefing in mind. Participants were informed that they could contact the researcher if they wished to discuss things further. This would have been either through their key workers, or by contacting the researcher directly. Furthermore, referrers were aware that their clients' were taking part in the study, and a mechanism for supporting the client following on from participation had been set up with their key workers prior to commencing the interviews.

3.5 Ethics

Ethical approval for the present study was sought by the author in January 1996, and approval was granted prior to commencing the research project (Appendix 12). Ethical issues regarding the nature of the project were discussed in an ongoing way, with keyworkers who were recommending participants to the project.

Clients and relatives were informed that a summary of the findings from the study would be sent to them if requested.

3.6 Data analysis

3.6.1 Statistical Analysis

The nature of the data

All measures used in the study met the criteria for the ordinal level of measurement, in that they could be ranked in order of magnitude. With regard to the Leeds Attributional Coding System, each dimension represented ordered categories. Thus the Mean Causal Attribution scores which emerged from the interview, could be ordered in a meaningful way. For example, on the Controllable-Uncontrollable Dimension, scores closer to '1' would suggest more Controllable Attributions, and scores closer to '3' would suggest that participants were making more

Uncontrollable Causal Attributions about particular symptoms. Regarding the questionnaires used in the study, all fulfilled the needs for the ordinal level of measurement, but did not meet the criteria for interval data as the distance between measures could not be considered equidistant. Given that this area of research is relatively new and exploratory, predictions regarding the direction of results were not made, and two tail tests were employed throughout.

Tests of difference

Given the nature of the data described, Non-Parametric Tests were the statistical analysis of choice (Dunn, 1996; pers com). These tests only examine whether scores are higher or lower than each other and do not require the presence of exact numerical differences between scores. In line with the Research Hypotheses, the Friedman Two Way Analysis of Variance was used to test whether significant differences existed between the three Symptomatic Categories, with regard to each Causal Attributional Dimension. This is the test of choice for related designs, when one is examining differences between three or more conditions with the same participants. The results from this test served to inform further analysis, in that when a significant difference was evidenced between categories on one of the Attributional Dimensions, the nature of those differences were explored further using the Wilcoxon Matched Pairs Signed Ranks Test. Median scores, the appropriate measure of central tendency for ordinal data, were then consulted to aid interpretation of the results.

Measuring Correlations

Correlations between variables within the same group were examined. For example, the relationship between levels of Depression (BDI) and clients' beliefs about whether their key relative had more negative or positive feelings towards them (Lebbel B) was investigated. In addition to this, possible correlations between matched pairs of clients and their relatives on different measures was also to be investigated. The Kendall's Tau (B) Correlation Coefficient was chosen, as this is the correct test of correlation for related designs with ordinal data.

3.6.2 Qualitative Analysis

Qualitatively Illustrating Quantitative Results

One of the primary aims of the Quantitative Analyses was to examine whether the underlying structure of participants Causal Beliefs/Attributions about illness varied depending upon the type of symptom being discussed. Furthermore, this method facilitated the examination of the underlying structure of beliefs between clients and their relatives. However, quantitative analysis of verbal information removes one from the rich material gained during the interview process, and the meaning and feel for the text can be lost. Mason (1993) has supported the integration of quantitative and qualitative data, to enhance the validity of the overall analysis. In the present study, poignant representative quotations from interviews will be used to illustrate significant results related to the analysis of Causal Attributions.

Generation of Categories From Text - An illustration

Quantitative approaches have their limitations. In the case of the present study, the coding system (LACS) was based on psychological theory imposed onto the text. Furthermore, the method of the LACS itself prevented the exploration of the complex inter-related nature of beliefs about illness symptomatology. For these reasons, the transcripts of one client/relative pair was randomly selected, and qualitative analysis was conducted. The approach to analysis on these interviews was informed by Grounded Theory Approach (Glaser and Strauss, 1968), which means : "the discovery of theory from data". The research interviews involved asking for participants beliefs about the initial cause of the illness and the subsequent causes of Positive Symptoms, Negative Symptoms and Behavioural Problems. Information relevant to these sections was selected from the interview transcripts using a highlighter pen, and the symptoms and causes given were categorised. This information was presented diagrammatically.

4. RESULTS

Quantitative Analysis and Qualitative Information will be presented in the section to follow. Each hypothesis will be presented in turn and followed by the relevant descriptive data, which will include the medians and ranges. For further information, means and standard deviations can be found in Appendix 13. Statistical analysis will follow on from the descriptive data. For greater clarity, results will be organised under the following sub headings: Results Pertaining to Hypotheses about Client Data; Results Pertaining to Hypotheses about Relative Data; Correlational Results between Client and Relative Data; Qualitative Section.

To reiterate information previously outlined in the Method Section, the nature of clients' and relatives' beliefs about different symptoms associated with schizophrenia were investigated. Quantitative Analysis will focus on the structure of beliefs rather than the content of material gained from interviews. The following Causal Attribution Dimensions will be investigated: Internal-External; Personal-Universal; Stable-Unstable; Controllable-Uncontrollable. In line with the hypotheses, these aspects of beliefs about the causes of illness related experiences will be examined in relation to the following Symptom Categories: Positive Symptoms; Negative Symptoms; Behavioural Problems. Otherwise, the 'Overall Causal Attribution Score' for a dimension (i.e. the mean score when the three Symptom Categories are added together, thus becoming an overall score for a dimension), will be examined in relation to the research hypothesis in question.

Significant results pertaining to the Causal Attributions will be illustrated with quotations from the interview transcripts. The aim being to ground the concepts underlying Causal Attribution Dimensions, in the actual statements participants made about the manifestation of the illness. The quotations will be in italics, and follow on from each quantitative result.

4.1 Results Pertaining to Hypotheses about Client Data

4.1.1 Hypothesis One: (Null)

For client data, in each of the Causal Attribution dimensions there will be no significant differences between the following Symptomatic Categories: Positive Symptoms; Negative Symptoms; Behavioural Problems.

Table 2 indicates the Median and Range scores for each Causal Attribution Dimension across Symptomatic Categories, which emerged from the analysis of the interviews with clients. Please note, as stated in the Method Section, each interview yielded a ‘Mean Causal Attribution Score’ for each Dimension within each Category.

Table 2: Description of data on Causal Attribution scores across categories; N = 18

Attribution Dimension	Positive Symptoms		Negative Symptoms		Behavioural Symptoms	
	Median	Range	Median	Range	Median	Range
Internal - External	1.86	1.00-3.00	1.45	1.00- 2.66	1.70	1.00-2.66
Personal - Universal	2.12	1.00-3.00	2.10	1.00- 3.00	1.80	1.00-3.00
Controllable - Uncontrollable	2.90	2.14-3.00	2.26	1.00- 3.00	2.00	1.00-3.00
Stable - Unstable	2.55	1.42-3.00	1.90	1.00- 3.00	2.65	1.66-3.00

Friedman two way analysis of variance (Table 3; overleaf) suggested that significant differences existed between the Symptomatic Categories, with regard to the Internal-External dimension; the Controllable-Uncontrollable dimension and the Stable-Unstable dimension. The nature of these differences were examined using the Wilcoxon Matched Pairs Signed Ranks Test (Table 4). The Personal-Universal dimension was not subjected to further analysis as no significant differences between the Symptomatic categories were evidenced in the analysis on Table 3 .

Table 3: Differences between Causal Attribution Scores across Symptomatic Categories for Client data, using the Friedman two way analysis of variance

Attribution Dimension	Chi-square	p Value
Internal - External	6.3611	0.00416**
Personal - Universal	1.7500	0.41700
Controllable - Uncontrollable	9.1944	0.01010*
Stable - Unstable	10.5278	0.00518**

Significance Levels : * P < 0.05; **P < 0.01; ***P<0.001

Table 4 shows that on the Internal-External dimension, no significant differences between Symptomatic Categories were evidenced at the P< 0.05 level of significance. However, significant differences existed between Symptom Categories on (A) the Controllable-Uncontrollable dimension and (B) Stable-Unstable dimension. Attending to the medians on Table 2, which give the measures of central tendency for the Attribution Scores across Symptom Categories, gives information pertinent to interpreting the meaning of the significant differences evidenced in Table 4.

Table 4: Analysis of differences between Symptomatic Categories for Client data using the Wilcoxon Matched Pairs Signed Ranks Test

Attribution Dimension	Positive with Negative		Negative with Behavioural		Behavioural with Positive	
	z Value	p Value	z Value	p Value	z Value	p Value
Internal - External	-1.7064	0.0879	-0.9581	0.3380	-1.6095	0.1750
Controllable - Uncontrollable	-2.9191	0.0035 **	-0.7498	0.4534	-2.9586	0.0031 **
Stable - Unstable	-2.7929	0.0052 **	-3.0770	0.0021 **	-1.5513	0.1208

Significance Levels : * P <0.05; ** P < 0.01; ***P < 0.001

Interpretation of Statistical Analysis on Table 4:

(A.i.) Controllable-Uncontrollable Dimension (Positive Symptoms with Negative Symptoms)

There were significant differences between Positive Symptoms and Negative Symptoms (Table 4). The medians (Table 2) demonstrated that both of these Symptom Categories had central tendencies which were closer to the Uncontrollable end of the dimension than the Controllable end. However, the median for Positive Symptoms was closest to the Uncontrollable end of the dimension. Thus Positive Symptoms were viewed by the clients as being significantly more Uncontrollable than Negative Symptoms, and therefore more likely to evoke the following kind of Uncontrollable Causal Attribution:

“At one point I had horrible thoughts racing round and round, that we would all die if Jesus didn’t save us. It was impossible to get away from them”. (Positive Symptoms).

(A.ii.) Controllable-Uncontrollable Dimension (Behavioural Problems with Positive Symptoms)

Significant differences existed between the Behavioural Problems Category and the Positive Symptoms Category (Table 4). The medians (Table 2) suggest that Behavioural Problems were significantly more likely to be viewed as having causes which were Controllable by the client, and Positive Symptoms were significantly more likely to be viewed as having causes which were Uncontrollable. Quotations which to follow reflect the results:

“When I set my flat alight I knew what I was doing, I just wanted to get at her” (Behavioural Problems)

“When I first became unwell the voices kept on night and day. I couldn’t stop ‘em.” (Positive Symptoms)

(B.i.) Stable- Unstable Dimension (Positive Symptoms with Negative Symptoms)

Significant differences existed between the Positive Symptom Category and the Negative Symptom Category (Table 4). Consulting the medians on Table 2 revealed that the central tendency of

Positive Symptoms was closer to the Unstable end of the dimension, suggesting that Positive Symptoms were more likely to be viewed being Unstable in nature. The median for Negative Symptoms was closer to the Stable end of the dimension. Thus when compared to Positive Symptoms, Negative Symptoms were considered to be more Stable. Examples from the transcripts illustrate the results:

"I was secretly mad at people I thought were watching me; now I know it was the illness"
(Positive Symptoms)

"I used to care for myself with cooking and thing, it's all just too much now" (Negative Symptoms)

(B.ii.) Stable-Unstable Dimension (Negative Symptoms with Behavioural Problems)

Significant differences between Negative Symptoms and Behavioural Problems were evidenced on this Attributional Dimension (Table 4). The medians for these Symptom Categories reveal that Negative Symptoms have central tendencies closer to the Stable end of the dimension and Behavioural Problems have measures of central tendency which are more Unstable. Hence Negative Symptoms were more likely to be viewed as Stable and Behavioural Problems were more likely to be viewed as Unstable. The following examples reflect the results :

"I haven't been able to do the housework for a while. I never have the energy". (Negative Symptoms)

"I threw stuff and banged around, that hasn't happened other times I was ill". (Behavioural Problems)

Outcome for testing of Hypothesis One (Null)

The alternative hypothesis received partial support for the following reasons: Positive Symptoms were significantly more controllable than Negative Symptoms, and Negative Symptoms were more

controllable than Behavioural Problems. On the Stable-Unstable Dimension Negative Symptoms were seen as more controllable than either Positive Symptoms or Behavioural Problems. The null hypothesis was partially supported as no other significant differences emerged between Symptom Categories.

4.1.2 Hypothesis Two : (Null)

There will be no relationship between levels of Depression in clients, and Causal Attributions about symptoms being more Stable, Personal, and Uncontrollable.

Table 5 shows the median score, and the range of scores which clients gained on the Beck Depression Inventory. The median score represents Moderate Depression, with the range reflecting Minimal to Severe levels of Depression among the participants.

Table 5: Descriptive information concerning results generated from the Beck Depression Inventory; N = 14

	Median	Range
Depression Score	18.31	1 - 33

Table 6 indicates the median and range data for the overall scores (the aggregate score across Symptom Categories) for the specified Causal Attribution Dimensions.

Table 6: Descriptive Data on Causal Attribution Scores for Clients' Overall Attribution Scores; N = 14

Attribution Dimension	Median	Range
Personal - Universal	2.14	1.22 - 3.00
Controllable - Uncontrollable	2.33	2.14 - 3.00
Stable - Unstable	2.36	1.78 - 2.93

Results in Table 7 suggest that there was no significant correlation at the $P < 0.05$ level of significance, between clients scores on the Controllable-Uncontrollable Dimension, or the Stable-Unstable Dimension, and levels of depression. However, making Personal Attributions about the causes of illness symptomatology was significantly correlated with levels of Depression. The

Kendalls Tau B (Table 7) demonstrates that the relationship was inverse. i.e. having a lower score on the Personal-Universal Dimension (Score of ‘1’ being Personal) was correlated with a obtaining a higher score on the BDI.

Table 7: Correlations between Depression Scores and combined Causal Attribution Scores; N =14

Attribution Dimension	Kendalls Tau B	p Value
Personal - Universal	-0.4469	0.0280 *
Controllable - Uncontrollable	-0.2159	0.2930
Stable - Unstable	-0.1117	0.5820

Significance Levels : * $P < 0.05$; ** $P < 0.01$; *** $P < 0.001$

The significant correlation evidenced on Table 7, suggests that clients with higher rates of Depression are more likely to make the following kind of Personal Attributions about the causes of illness related symptoms they experience:

“I think the voices are a punishment because I did something bad”. (Positive Symptoms)

“I don’t wash much ‘cos that’s the kind of person I am - filthy”. (Negative Symptoms)

“I know I shouldn’t have done it, but I smashed the door down when I found out she’d been with him. I wanted to scare her”. (Behavioural Problems)

Outcome for testing of Hypothesis Two (Null)

The alternative hypothesis was partially supported in that higher levels of depression were associated with clients making more Personal Attributions for the cause of their experiences. Support for the null hypothesis also existed as level of depression was not related to making more Controllable and Stable Attributions.

4.1.3 Hypothesis Three: (Null)

There will be no relationship between Clients’ feelings and thoughts towards their named Relatives (as measured by Lebell A) and Clients’ perception of their named Relatives feelings and thoughts towards them (Lebell B).

Table 8 gives the median and range scores generated from the Lebell Scales. To recap, the Lebell Scales consist of five point likert scales measuring clients’ perception of their relationship with a named Relative. Consulting Table 8 shows that Lebell B (clients’ perception of their relatives’ feelings and thoughts towards them) had the widest range. A rating of ‘1’ denoting ‘mostly very strong negative thoughts and feelings’, with a rating of ‘4’ representing ‘mostly moderate positive feelings and thoughts’. Given that the median for both Lebell ‘A’ and Lebell ‘B’ was around a ‘3’ suggests that the midpoint for both of these Scales resulted in ratings representing ‘about equally mixed positive and negative feelings and thoughts’.

Table 8: Descriptive data pertaining to ratings on the Lebell Scales; N = 14

	Median	Range
Lebbel A	3.50	2 - 4
Lebbel B	3.00	1 - 4

The Kendall’s Correlation Coefficient was conducted on the data described in Table 7, and the resulting level of significance ($P<0.062$) indicated that a trend existed between clients’ feelings and thoughts towards a pre-identified relative, and their perception of the named relatives’ feelings and thoughts towards them.

Outcome for testing of Hypothesis Three (Null)

The null hypothesis was supported, as no statistically significant relationship existed between clients’ thoughts and feelings toward a key relative and their perception of the key relatives thoughts and feelings towards them.

4.1.4 Hypothesis Four : (Null)

There will be no relationship between Clients’ perception of their named Relatives’ feelings and thoughts towards them (Lebell B), and levels of Depression (BDI).

The median score for the Lebell B Scale (Table 9) represents ‘mostly mixed positive and negative feelings’. The range reflected that some clients believed that that their relative held ‘mostly negative thoughts and feelings towards them’ (1), and others perceived their relative to have ‘mostly moderate feelings and thoughts towards them’. The median Depression Score represented the presence of moderate levels of Depression, and the range of responses demonstrated that levels of Depression varied from minimal to severe.

Table 9: Descriptive data related to valid cases on the Lebbel B Scale and the BDI; N = 13

	Median	Range
Lebbel B	3.00	1 - 4
Depression Score	20.00	1 - 33

Correlational analysis was carried out on the data on Table 9. Kendall’s Tau B was -0.6618 and the level of significance was $P < 0.004$. This indicates that clients who perceived their named relative to have more negative feelings towards them, had higher rates of Depression as indicated by their BDI score.

Outcome of testing Hypothesis Four (Null)

The alternative hypothesis was accepted. Clients’ perceiving their key relatives’ to have more negative thoughts and feelings towards them, was correlated with higher levels of depression.

4.2 Results Pertaining to Hypotheses about Relative Data

4.2.1 Hypothesis Five : (Null)

For relative data, in each of the Causal Attribution dimensions there will be no significant differences between the following Symptomatic Categories: Positive Symptoms; Negative Symptoms; Behavioural Problems.

Table 10 indicates the median and range scores for each of the Causal Attribution Dimensions across the three Symptomatic Categories. Material gained from the relatives’ interviews provided information for these results.

Table 10: Description of Causal Attribution Scores across categories; N = 11

Attribution	Positive Symptoms		Negative Symptoms		Behavioural Symptoms	
Dimension	Median	Range	Median	Range	Median	Range
Internal - External	1.33	1.00-2.08	1.33	1.00-2.00	1.68	1.00-2.75
Personal - Universal	2.66	1.75-3.00	2.00	1.00-3.00	1.63	1.00-2.50
Controllable - Uncontrollable	2.83	1.66-3.00	2.44	1.00-3.00	1.83	1.00-2.33
Stable - Unstable	2.50	1.66-3.00	2.00	1.00-3.00	2.81	1.75-3.00

Results from the Friedman two way analysis of variance (Table 11) indicated that significant differences existed between the Symptomatic Categories on the Personal-Universal dimension and Controllable-Uncontrollable dimension. These differences were subjected to further analysis using the Wilcoxon Matched Pairs Signed Ranks Test (Table 12). There were no significant differences at the $P < 0.05$ level of significance, evidenced across Symptomatic Categories on the Internal-External dimension, or the Stable-Unstable dimension (Table 11). Therefore neither of these Causal Attribution dimensions were examined further.

Table 11: Differences between Causal Attribution scores across Symptomatic Categories for Client data, using the Friedman two way analysis of variance; N = 11

Attribution Dimension	Chi-square	p Value
Internal - External	0.5909	0.744
Personal - Universal	12.6180	0.002 **
Controllable - Uncontrollable	13.2727	0.001 ***
Stable - Unstable	2.9091	0.234

Significance Levels : * P < 0.05; ** P < 0.01; *** P < 0.001

Table 12 demonstrates that significant differences existed between Symptom Categories on (A) the Personal-Universal Dimension, and (B) the Controllable-Uncontrollable Dimension. Attending to the medians on Table 10, which denote the measures of central tendency for Causal Attribution Scores across Symptom Categories, gives data which is pertinent to interpreting the significant differences apparent on Table 12.

Table 12: Analysis of differences between Symptomatic Categories for Relative data using the Wilcoxon Matched Pairs Signed Ranks Test; N = 11

Attribution Dimension	Positive with Negative		Negative with Behavioural		Behavioural with Positive	
	z Value	p Value	z Value	p Value	z Value	p Value
Personal - Universal	-2.4450	0.0145 *	-1.5799	0.114	-2.5784	0.009 **
Controllable - Uncontrollable	-2.5471	0.011 *	-2.1917	0.028 *	-2.9341	0.003 **

Significance Levels : * P < 0.05; ** P < 0.01; *** P < 0.001

Interpretation of Statistical Analysis on Table 12:

(A.i.) Personal-Universal Dimension (Positive Symptoms with Negative Symptoms)

There were significant differences between Positive and Negative Symptoms on the Personal-Universal Dimension (Table 12). Consulting the respective medians on Table 10 indicates that compared to Negative Symptoms, Positive Symptoms were significantly more likely to be given

Universal ratings. Hence Positive Symptoms were more likely to evoke the following kind of Causal Attribution :

“I think they all get like it when they are ill. Having voices is common isn’t it ?” (Positive Symptoms)

(A.ii.) Personal -Universal Dimension (Behavioural Problems with Positive Symptoms)

Table 12 indicates that significant differences existed between Behavioural Problems and Positive symptoms on this dimension. The medians (Table 10) indicate that Positive Symptoms were more likely to be viewed being caused by Universal causes, and Behavioural Problems were regarded as being caused by clients’ Personal characteristics.

“He’s been fighting with me lately. I know he’s ill but I think its just him” (Behavioural)

“When the schizophrenia comes on he doesn’t make much sense” (Positive Symptoms)

(B.i.) Controllable-Uncontrollable Dimension (Positive Symptoms with Negative Symptoms)

Significant differences existed between Positive and Negative Symptoms on the Controllable-Uncontrollable dimension (Table 12). On the Controllable-Uncontrollable dimension, the medians for both Positive and Negative Symptom Categories were greater than the midpoint of the dimension (Table 10), suggesting that both Positive and Negative Symptoms were more likely to be deemed as uncontrollable than controllable. However, positive symptoms were closer to the Uncontrollable end of the dimension than were the Negative Symptoms. Therefore the significant differences evidenced on Table 12, suggest that Positive Symptoms were more likely to be viewed as Uncontrollable. Hence in the relatives’ interviews, there was a greater likelihood that relatives would give the following kind of Uncontrollable Causal Attribution regarding Positive Symptoms:

“He strongly believed someone was out to kill us. He still does...these ideas are down to his mental health problem he couldn’t help it”. (Positive Symptoms)

(B.i.i.) Controllable-Uncontrollable Dimension (Negative Symptoms with Behavioural Problems)

The analysis in Table 12 also demonstrated that there were significant differences between Negative Symptoms and Behavioural Problems on the Controllable-Uncontrollable dimension. Consulting the respective medians (Table 10) reveals that Negative Symptoms were more likely to be considered Uncontrollable and Behavioural Problems were more likely to be deemed Controllable. Therefore the following kinds of Causal Attributions would tend to be given for the respective Symptom Categories:

“When he was first ill he’d shut himself away. He really believed we were all out to get him”.

(Negative Symptoms)

“You know I’m sure he shakes the pills in his hand just to get at me”. *(Behavioural Problems)*

(B.i.i.i) Controllable-Uncontrollable Dimension (Behavioural Problems with Positive Symptoms)

There were also significant differences between Behavioural Problems and Positive Symptoms (Table 12). The medians (Table 10) for the two Symptom Categories inform the interpretation of Table 12 and reveal that Behavioural Problems tended to be deemed as more Controllable, and Positive Symptoms were more likely to be seen as having causes which were more Uncontrollable in nature. The quotations to follow reflect the kinds of Causal Attributions which relatives made on the Controllable-Uncontrollable dimension, with reference to Positive Symptoms and Behavioural Problems:

“It was so distressing for him when he thought the ‘little men’ were coming to get him. The schizophrenia was really bad then”. *(Positive Symptoms)*

“When he goes on and on at me in the morning when I’m trying to do the housework, it’s not the illness he does it to wind me up”. *(Behavioural Problems)*

Outcome for testing Hypothesis Five (Null):

The alternative hypothesis was partially supported, as causal attributions made for Positive Symptoms were more likely to be Universal when compared to Negative Symptoms. Furthermore, Behavioural Problems were more likely to be considered to arise through Personal factors when compared to Positive Symptoms. On the Controllable-Uncontrollable Causal Attribution Dimension, Positive Symptoms were seen as more Uncontrollable than either Negative Symptoms or Behavioural Problems. Furthermore, Behavioural problems were seen as significantly more Controllable than Positive Symptoms. No other significant differences were evident hence the null hypothesis received some support.

Hypothesis Six : (Null)

There will be no relationship between Relatives’ scores on the Knowledge About Schizophrenia Questionnaire, and levels of distress as measured by the Family Distress Scale.

Table 13 shows the median and range scores obtained on the Knowledge about Schizophrenia Questionnaire (Relatives Version), and the Family Distress Scale.

Table 13: Descriptive Information about Relative Knowledge and Distress Scores; N = 9

	Median	Range
Relatives Knowledge	23.00	15 - 36
Distress	27.00	22 - 71

The Kendall Correlation Coefficient was carried out on the data represented in Table 13. No significant correlation was evidenced between levels of Distress and Knowledge. Kendall’s Tau B was 0.000, and the significance level was $P<1.00$.

Outcome to testing of Hypothesis Six (Null):

The null hypothesis was supported, as no relationship existed between levels of distress in relatives and their knowledge about schizophrenia.

4.3 Correlational Results between Clients and Relatives

4.3.1 Hypothesis Seven : (Null)

There will be no relationship between Relatives’ and Clients’ Knowledge about Schizophrenia, as measured by the Knowledge about Schizophrenia Questionnaires.

Table 14 gives the median and range scores for both relatives’ and clients’ scores on the respective Relative and Client Knowledge About Schizophrenia Questionnaires.

Table 14: Descriptive Information on Knowledge Scores for Relatives and Clients; N = 5 matched pairs

Knowledge Score	Median	Range
Relatives	23.00	18 - 29
Clients	18.00	11 - 28

Possible relationships between relatives’ and clients’ knowledge about schizophrenia, were investigated using the Kendall Correlation Coefficient. The results were as were as follows: Kendall’s Tau B was 0.448, and the significance value was $P<0.448$. Hence there was no significant correlation between clients’ and relatives’ Knowledge.

Outcome to testing of Hypothesis Seven (Null):

The null hypothesis was supported as their was no relationship between relatives’ and clients’ knowledge about schizophrenia, as measured by the ‘Knowledge about Schizophrenia Questionnaire’.

4.3.2 Hypothesis Eight : (Null)

There will be no relationship between Relatives’ Causal Attributions about the illness and Clients’ Causal Attributions about the illness.

Table 15 indicates the median and range data for the overall scores (the aggregate score across Symptom Categories) for the Causal Attribution Dimensions.

Table 15: Causal Attribution Scores for Participants' Overall Attribution Scores; N = 9

Attribution Dimension	Clients		Relatives	
	Median	Range	Median	Range
Internal - External	1.74	1.16 - 2.23	1.39	1.11 - 1.93
Personal - Universal	2.13	1.26 - 2.53	2.16	1.33 - 2.55
Controllable - Uncontrollable	2.33	1.88 - 2.66	2.44	1.55 - 2.66
Stable - Unstable	2.45	1.82 - 2.93	2.24	1.80 - 2.88

Table 16 indicates that there were no significant correlations between clients and their relatives in Causal Attributions made about the illness, with regard to the Internal-External dimension and the Stable-Unstable Dimension, at the $P < 0.05$ level of significance. However, significant correlations existed between the relative-client pairs on the Personal-Universal dimension, and the Controllable-Uncontrollable dimension. This suggested that there was a high level of concordant thinking about the illness between relatives and clients, on these two dimensions.

The descriptive information on Table 15 suggests that clients and relatives were more likely to view the illness symptoms, as being caused by Universal and Uncontrollable factors.

Table 16: Correlations between Clients' and Relatives' Overall Causal Attribution Scores on each dimension; N= 11 matched pairs

Attribution Dimension	Kendalls Tau B	p Value
Internal - External	0.3818	0.102
Personal - Universal	0.6239	0.008 **
Controllable - Uncontrollable	0.4771	0.042 *
Stable - Unstable	0.0734	0.755

Significance Levels : * $P < 0.05$; ** $P < 0.01$; *** $P < 0.001$

To follow are examples which illustrate the results above. They demonstrate that although the content of causal material differed, there was a relationship between the two groups regarding the

underlying structure of their causal beliefs.

Personal-Universal Dimension

Client : “I think when I hear the voices its a defect in the brain. I was told most Schizophrenics have problems in their chemistry .” (Universal attribution)

Relative : “He thought we were all part of a plot....I think paranoia is part of the illness.” (Universal attribution)

Controllable-Uncontrollable Dimension

Client: “I couldn’t face going out at the time I was ill and was sure something awful would happen ”. (Uncontrollable attribution)

Relative: “He believed something was in his wardrobe ...he couldn’t be reassured”. (Uncontrollable attribution).

4.4 Summary of Results

4.4.1 Causal Attributions in Relation to Symptom Categories

It is of interest that neither client data nor relative data evidenced significant differences between Symptom Categories on the Internal-External Dimension. Consulting the medians on Tables 2 and 10 reveals that all Symptom Categories were more likely to be viewed as having causes which were Internal in nature. This contrasts with the Personal-Universal Dimension. Relatives considered Positive Symptoms to have causes which were significantly more likely to be Universal, compared to Negative Symptoms and Behavioural Problems. Both of which were more likely to be deemed to be caused by the clients’ Personal characteristics. For client data on the Personal-Universal Dimension, no significant differences between Symptom Categories were evidenced.

Regarding the Stable-Unstable Dimension, clients considered Negative Symptoms to be significantly more Stable than the other Categories, with Positive Symptoms and Behavioural

Problems being considered significantly more Unstable. This contrasts with the relative data, as there were no significant differences between Categories regarding the Stable-Unstable Dimension. Finally, on the Controllable-Uncontrollable Dimension, both relatives and clients regarded Positive Symptoms as significantly more Uncontrollable than the other Symptom Categories. In addition, relatives viewed Behavioural Problems as significantly more Controllable than Positive Symptoms, whereas this was not the case for client data.

4.4.2 Correlations between Relatives and Clients

Analyses which investigated the relationship between client and relative data for symptoms overall, revealed correlations between client and relative pairs for the Personal-Universal Dimension, and the Controllable-Uncontrollable Dimension. The respective medians on Table 15 showed that participants were more likely to regard experiences related to illness as Universal and Uncontrollable.

The relationship between clients and relatives knowledge about schizophrenia was examined and no correlation was evidenced. It must be noted that the number of valid cases for this analysis was small, but consulting the descriptive data on Table 14 suggested that relatives were scoring higher on the measure compared to clients.

4.4.3 Clients Attributions about Illness and Perception of Relationship with a Key Relative in Relation to Depression

There was a clear relationship between clients regarding symptoms associated with their illness as being caused by Personal factors, and higher levels of self rated depression. There was also a relationship between clients perceiving their relatives to have more negative thoughts and feelings towards them and higher levels of Depression.

4.4.4 Relationship between Relatives' Knowledge about Schizophrenia and Levels of Distress.

There was no relationship between relatives score on the Knowledge About Schizophrenia Questionnaire, and the Family Distress Scale.

4.5 Qualitative Analysis

Qualitative analysis was conducted on one client and his relative. This is illustrated using Figures One and Two and described in the following sections. Names used have been changed for the purpose of anonymity.

4.5.1 A Guide to Figures One and Two

Figures One and Two present the information contained in the separate interviews conducted with one client and his mother. The box at the top of the diagram 'Beliefs about Initial Cause of Illness' represents the participants' beliefs about the long term causes underlying the illness, and factors precipitating the onset. Arrows direct to the subsequent symptoms which have been experienced. Namely Positive Symptoms, Negative Symptoms and Behavioural Problems. Within these boxes are the range of symptoms and related causes expressed in the interviews with the two participants.

The categories for symptoms, and categories for causes in Figures 1 and 2, resulted from reading and re-reading the two interviews, and developing categories which were relevant to all the data in each individual interview. The illustrative quotations are examples of the kind of statements which were coded under the corresponding category. The diagrams reflect an alternative way to consider the interview material, and show the complexity of beliefs held by the client and relative. No claims are made about how representative the categories are in relation to other interviews. However, the majority of other participants also expressed a diversity of beliefs about the illness.

4.5.2 Examination of Figures One and Two

Both the client (Mark) and relative (Mrs Smith) perceived early experience to be causally related to the development of Mark's mental health problems. During the interview Mark asserted that going to a special boarding school had predisposed him to becoming unwell in later life. In the interview with Mrs Smith, she spoke movingly about how she held herself responsible for the development of Mark's illness. Stating that she had neglected her son emotionally as a small infant, as she was preoccupied with worries about her relationship with her husband *"I used to wrap Mark up and leave him to cry"*. She thought that she had then tried to compensate, but became over protective *"I think he got very anxious through that and of course I was overprotective"*. During the interview she provided a coherent account of how she considered these early experiences to have impacted upon Mark during his development. With regard to factors precipitating the first psychotic episode, both Mark and Mrs Smith viewed the fathers death to be causally related.

Mark and his mother expressed a range of causes to explain subsequent illness symptoms, and there was evidence of similarities and differences in their explanations. It was of interest that Mrs Smith considered organic factors to be related to illness symptoms, but did not express this as being the cause of the illness at the outset. Mark did not consider organic factors to be related to his illness symptoms, but detailed the importance of his feelings, in exacerbating his psychotic experiences. He spoke about stress at home and feeling as though he did not get enough attention, as making the symptoms worse *"Sometimes its bad when my sisters children come around cos it ends up me feeling I don't get enough attention and care"*. Mark also viewed his affliction as punishment from God, and expressed guilt for what he had done.

What was of particular interest when examining these two interviews, was that Mark and Mrs Smith both cited Positive Symptoms being causally related to the Negative Symptoms. On observing this fact, the author recalled that in many other interviews, participants had described

Positive Symptoms as causing Negative Symptoms. Subsequently scanning other interviews confirmed this to be the case. However, it was not within the scope of this project to investigate this further.

The qualitative information in this section represents a snap shot of the content of material in the interviews. However, illustrates that clients and relatives may hold and express complex understandings of symptoms associated with schizophrenia.

Figure 1: Client

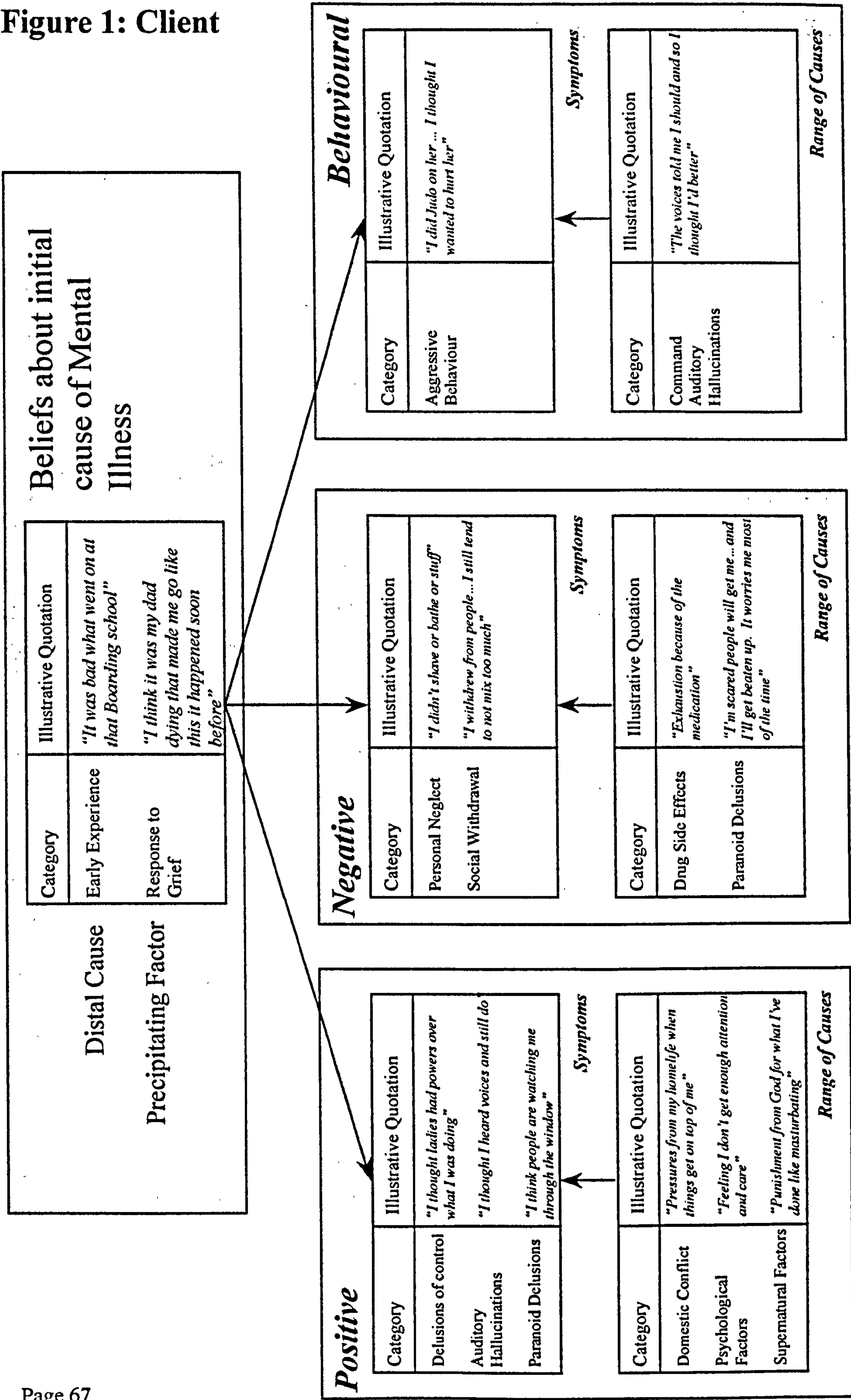
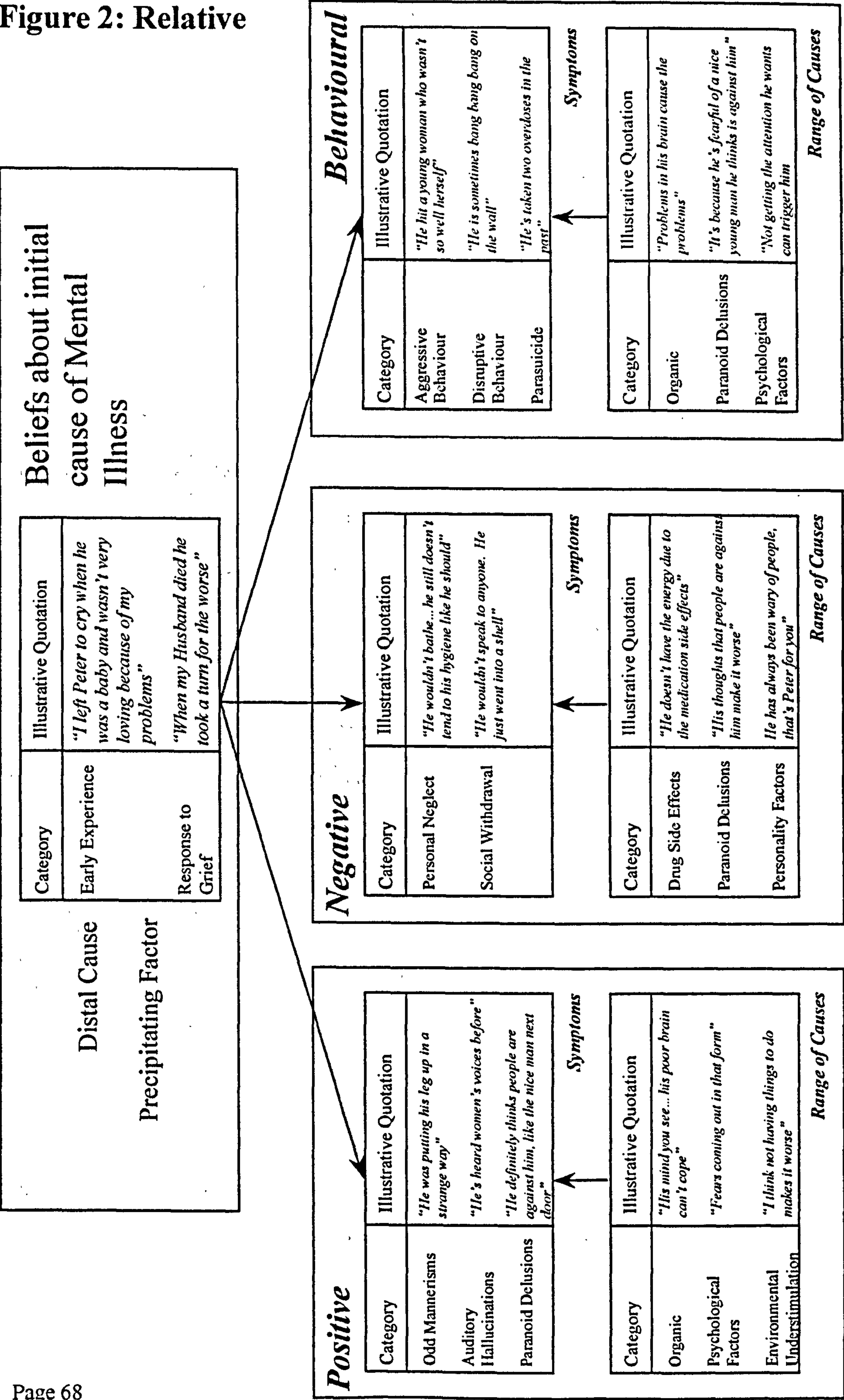


Figure 2: Relative



Category

Personal Neglect

Illustrative Quotation

"He wouldn't bathe... he still doesn't tend to his hygiene like he should"

Category

Social Withdrawal

Illustrative Quotation

"He wouldn't speak to anyone. He just went into a shell"

Negative

Symptoms

Category

Drug Side Effects

Illustrative Quotation

"He doesn't have the energy due to the medication side effects"

Category

Paranoid Delusions

Illustrative Quotation

"His thoughts that people are against him make it worse"

Category

Personality Factors

Illustrative Quotation

He has always been wary of people, that's Peter for you"

Range of Causes

Category

Odd Mannerisms

Illustrative Quotation

"He was putting his leg up in a strange way"

Category

Auditory Hallucinations

Illustrative Quotation

"He's heard women's voices before"

Category

Paranoid Delusions

Illustrative Quotation

"He definitely thinks people are against him, like the nice man next door"

Positive

Symptoms

Category

Organic

Illustrative Quotation

"His mind you see... his poor brain can't cope"

Category

Psychological Factors

Illustrative Quotation

"Fears coming out in that form"

Category

Environmental Understimulation

Illustrative Quotation

"I think not having things to do makes it worse"

Range of Causes

5. DISCUSSION

5.1 Discussion of Results

The main findings from the present study will be discussed in relation to previous research which has been conducted. Results from the quantitative study provided partial support to the alternative hypotheses, but some null hypotheses could not be rejected and require further research.

5.1.1 Results Pertaining to Clients' and Relatives' Causal Attributions

One of the main thrusts of the research was to investigate the causal attributions held by clients and relatives to explain the manifestation of the illness. Enquiries were informed by research based on attribution theory, and more specifically its application to the area of emotional atmospheres in families. A major finding was that causal attributions made to explain the illness, differed according to the nature of symptom in question. Clients (Table 4) and relatives (Table 12) viewed positive symptoms to be more uncontrollable than negative symptoms or behavioural problems. This finding supports research in the area which has indicated that positive symptoms will be viewed as less controllable than other manifestations of the illness (Brewin et al., 1991). Furthermore, Hooley et al. (1987) proposed that negative symptoms and behavioural problems may evoke beliefs about volitional control, whereas positive symptoms would not. Attribution theory states that if a negative event is seen as being within the control of a person, this will evoke feelings of anger in the observer as they make assumptions about intentionality, and guilt will be experienced on the part of the actor (Weiner, 1986). Furthermore, Brewin et al. (1991) found that relatives who viewed the illness symptoms as more controllable by the client were more critical and hostile towards the client. These emotional correlates were not investigated directly in the present study. However, anecdotally some comments in the interviews would support this proposition : " *I tell him to stop winding me uphe does it on purpose its not the illness...it really gets me going*" (relative). In addition some clients expressed remorse for what they had done " *When I set light to the flat I knew what I was doing, I just wanted to get at her.... I really*

regret it now though". No conclusions can be drawn regarding the underlying emotions generally prevailing in the sample, as they were not systematically assessed.

Weary (1978) suggested that people have a tendency to adopt a self serving bias in the attributions they make about events. This theory was not supported in the present study, as clients readily attributed their behavioural problems, as being within their control.

Clients perceived negative symptoms to be more stable than positive symptoms or behavioural problems, which were considered to be more unstable (Table 4). This position was not true of relatives. This may suggest that clients' subjectively experience negative symptoms as being significantly more enduring than the other aspects of the illness. Furthermore, the presence of negative symptoms may not be as salient to relatives, as they are less likely to cause the level of disruption to family life which the more active symptoms of psychosis tend to do. The research conducted by Brewin et al. (1991) found that relatives considered interpersonal difficulties to be most stable. However, the present study did not enquire specifically about interpersonal difficulties, as separate from behavioural disturbances. Hence it is not possible to establish whether this attributional process may have been evident in the relatives' sample.

There were significant differences between symptom categories, regarding what relatives viewed as personal to the client, and universal. They considered positive symptoms to be universal and behavioural problems to be more personal (Table 12). Research by Brewin et al. (1991) also found that behavioural disturbances would be viewed as being personal to the client. Furthermore, such attributions may be marked by greater hostility and criticism towards the client (Brewin et al., 1991; Barrowclough et al. , 1994), as they are viewed as being related to the clients' personality . However, this analysis compared relatives' perception of clients' personal responsibility across categories, and says nothing of relatives general views of clients personal responsibility for their illness. For client data, no significant differences between categories were evidenced on this

dimension. This was because clients' perception of their personal responsibility across symptom categories was comparable (Table 2).

Overall, the analysis examining differences in the nature of attributions made between symptom categories supported findings in the literature. Particularly with regard to the controllable-uncontrollable dimension. However, some studies (e.g. Hooley et al., 1987), examined whether relatives considered clients to predominantly exhibit behavioural problems, positive symptoms or negative symptoms. The present study did not enquire whether clients experienced one type of symptom more than another. Hence the results only illustrate the differences in causal attributions made between categories. Analysis did not examine whether significant differences existed between relatives and clients, with regard to their causal ascriptions for symptoms within the categories. Hence one cannot propose that because client data evidenced differences between symptom categories on the stable-unstable dimension, and relatives did not, that significant differences would have existed between clients and their relatives.

5.1.2 Relationship Between Clients' and Relatives' Attributions

A relationship existed between clients' and relatives' causal attributions for the illness overall (Table 16). Clients and relatives tended to attribute the illness and its manifestations, to be caused by universal and uncontrollable factors. Barrowclough et al. (1994), found that relatives who made more uncontrollable attributions about the illness, came from low EE families, or families which were high on the expressed over involvement indices of the Camberwell Family Interview. Measures of expressed emotion were not investigated in the present study. However, the author's experience during the interviews would support the view that relatives in the study tended not to be critical and hostile. Furthermore, only relatives who had reasonable relationships with clients were referred to the study.

Weiner (1986) noted that uncontrollable causal attributions are related to feelings of pity on the part of the observer, and shame on the part of the actor. Birchwood et al. (1993) has said that clients who are depressed tend to see their illness as being uncontrollable, as they may see it as an event they are powerless to change. Table 5 shows that the median depression rate for the group fell into the moderate range. Hence it could be hypothesised that clients' perception of control over their illness influenced their affective state

It was of interest that the internal-external dimension was not influential in any of the analysis. Consulting Tables 2 and 10, indicates that relatives and clients seemed to view the illness symptoms as tending to be internal to the client. These findings support the authors' experience during the interviews. Participants tended to view illness symptoms as being related either to a biological problem, or conversely some viewed it as being related to something innately bad in the client. Whatever the content of causes given, it seemed as though participants were more likely to give an internal causal attribution than an environmental one.

5.1.3 Depression, Attributions, and Perception of Relationship with a Key Relative

The symbolic interactionist school of thought (Hampson, 1988) suggests that self perceptions are influenced by others perceptions of us. Thus clients' views of the control they have over their illness, may be influenced by relatives' views. Furthermore, Weiner (1986) suggested that society regards mental illness as being beyond the control of clients. Thus this may influence the views of both clients and relatives.

This project examined whether levels of depression were related to clients making more stable, personal and uncontrollable causal attributions about their illness. The only significant correlation was between clients giving more personal attributions to explain their illness, and higher levels of depression (Table 7). These clients may have blamed themselves for the illness, and viewed it as being related to something they had done. This position was supported in some of the interviews

with clients. Some viewed aspects of their illness as being a "punishment from God". In some instances their reasons for this were psychotic in nature, for example "Because I did something bad in another life". However this was not necessarily the case. One client said he "always upset the apple cart" and that his illness was further evidence that he was bad. These may be anecdotal examples, however research in depression more generally would support the view that the guilt which can accompany depression, is related to feelings of personal responsibility.

No relationship was found between levels of depression and perceived control. Table 6 indicates that most of the sample viewed their symptoms to be more uncontrollable than controllable. Hence there may not have been sufficient differences within the group to evidence a correlation between depression and perceived control.

Levels of depression were examined in relation to clients' perception of quality of relationship with a key relative, as measured by the Lebell Scales (Lebell et al., 1993). There was a clear relationship between depression and clients' perceiving that their relatives had more negative thoughts and feelings towards them. Furthermore, the symbolic interaction school (Hampson, 1988) suggests that our perception of others views towards us, is an accurate reflection of how others do see us. Therefore it is possible that clients' depressive symptoms could in part be related to the way their key relatives make them feel. Lebell et al. (1993) found that clients' perceptions of key relatives' thoughts and feelings towards them were indicative of the family emotional atmosphere generally, and predictive of relapse. Therefore, these results may be of importance.

Correlations were also found between clients' thoughts and feelings about a key relative (Lebell A) and clients' perception of the key relatives' thoughts and feelings towards them (Lebell B). Lebell et al. (1993) also found a correlation between the two measures. The median scores (Table 8) suggested that most clients had mixed thoughts and feelings towards their relatives, and that they perceived their key relatives to similarly hold mixed thoughts and feelings towards them. It is

suggested that gaining clients' perception of their relationship with a key relative may be important clinically if they live with relatives, as it may help indicate the quality of relationships in the family.

5.1.4 Knowledge about Schizophrenia and Distress

It has been widely reported that carers of clients with psychosis experience distress as a result of their care giving (Atkinson and Coia, 1995). Furthermore, Smith et al. (1993) have suggested that there may be differences in the needs of relatives viewed as high EE and low EE. They found that relatives categorised as high EE reported higher subjective burden and perceived themselves to be coping poorly. Furthermore, high EE relatives were more likely to have needs in five areas including knowledge. The present study sought to investigate the possible relationship between knowledge relatives held about schizophrenia, and levels of distress. However, knowledge and distress were not related. Information concerning the standardisation of these measures was not available to the author prior to submission of this project, so it is difficult to comment on whether relatives' scores on these measures were high or low compared to the norms. All that can be said is that in the present study no relationship was evidenced.

Relatives' and clients' knowledge scores were compared to investigate whether a relationship existed. For this analysis, there were only five client-relative pairs, hence the results are to be interpreted with caution. No relationship existed, however it was of interest that the median score obtained by relatives, appeared to be higher than those obtained by clients (Table 14). It may be of interest to examine the nature of similarities or differences which exist between clients' and relatives' knowledge about the illness, as this may reflect clients' and relatives' respective knowledge, and possibly beliefs about the illness.

5.1.5 Summary

The key findings from the results were that relatives and clients view positive symptoms to be more uncontrollable than either negative symptoms or behavioural problems. This finding is supported by

previous work which has looked at relatives' causal attributions about the illness (Brewin et al., 1991). In addition to this, from the three symptom categories under investigation, clients viewed negative symptoms to be most stable. With regard to the personal-universal dimension, relatives saw behavioural manifestations of the illness as more likely to be related to personal attributes of the clients' when compared to the other two symptom categories.

There was a relationship between clients' and relatives' causal attributions about illness symptoms overall, with regard to the personal-universal dimension and the controllable-uncontrollable dimension. The medians suggested that both parties were more likely to view the illness as being related to universal factors and uncontrollable factors. Such causal attributions about the illness are consistent with families who fall into the low EE category, or the expressed over involvement indices of the high EE category (Barrowclough et al., 1994). Furthermore, the proposal that there may be similarities in the beliefs held by clients' and their relatives' is supported.

Clients perceiving their relative to hold more negative thoughts and feelings towards them was correlated with higher levels of depression. It could be argued that clients perceiving their relatives to feel negatively towards them might affect their self esteem. Moreover, attributing negative events to personal characteristics may suggest that clients experienced guilt. During interviews some clients felt that their symptoms were a punishment for something they had done. There was a correlation between clients' feelings towards their key relative, and their perception of their relatives' feelings towards them. Lebell et al. (1993) has suggested these measures provide good indications of relatives' true feelings towards a client. Hence it is possible that the relatives' true feelings towards clients were impacting on the clients' mental health. This may be an important finding clinically, as it indicates the importance of considering the family dynamics from clients' and relatives' perspectives. The null hypotheses could not be rejected in any other analyses.

5.1.6 Discussion of Qualitative Findings

The research project was predominantly quantitative in nature. However, it has been documented that linking quantitative analysis with qualitative can enhance research (Mason, 1993). Furthermore, the author sought to illustrate to the reader, the nature of comments which were made during the process of the interviews.

Figures 1 and 2 reflect a summarising and re-interpretation of the interviews conducted with one relative-client pair. They are not intended to be representative of other interviews, but reflect their views about the causes of symptoms associated with psychosis. Furthermore, qualitative research accepts that there are a range of ways people can view the world (Jones, 1995).

Both client and mother expressed a range of views about the illness. This is consistent with research which has investigated the categories of causal beliefs which people tend to accept as being influential, in causing mental health problems (Whittle, 1996). He has stated that clients and lay people alike hold bio-psycho-social attributions for the cause of mental illness. This was true of the relative (Mrs Smith) in the present study, however the client (Mark) did not mention biological factors as being causally related to his symptoms.

As stated in the method and results sections, the categories were generated for each interview by examining and re-examining the respective interviews. However, it is acknowledged that the categories are descriptors of text, more than interpretations of the meaning. However, it is of interest to note that there were similarities in the content of attributions which Mrs Smith and Mark made to explain the illness. It was of general interest to the author that Mark, Mrs Smith and other participants mentioned positive symptoms as causing negative symptoms. Barnes (1994) discussed that secondary negative symptoms (i.e. those which are a consequence of exacerbation of psychosis), are common. Although psychiatric assessments claim to distinguish between primary and secondary negative symptoms, it is questionable whether in main stream psychiatry, this is

widely practised in a systematic way. This may suggest that many clients experience distressing symptoms which are unnoticed by community services.

The similarities between Marks' and Mrs Smiths' causal attributions, supports the symbolic interactionist position. It was also interesting that Mrs Smith expressed guilt for the development of Marks' illness, and Mark mentioned that his illness was a punishment from God. He mentioned this several times in the interview, and seemed remorseful for things he had done. Attribution Theory (Weiner, 1986) hypothesises that when people accept personal responsibility for negative events they will experience guilt. Although Mark and his mother expressed other attributions about the illness during the interview, the authors' subjective experience was that they both felt profoundly guilty for the illness.

As a clinical researcher, there are certain clinical intuitions one experiences which cannot be quantified. With reference to the meetings with Mark and Mrs Smith, there was a sense in which they both projected a false agreement about the illness when they were interacting outside the interviews. Wynne et al. (1958) proposed the concept of 'pseudo mutuality' to describe families with a schizophrenic member. Stating that such families have a shared illusion that they all have the same expectations and beliefs, leading to sublimation of divergent views. This theoretical position would help inform the authors' personal experience of interacting with this family.

5.2 Discussion of Method

Issues related to participant recruitment and format of interviews and interview location will be discussed. Furthermore, measures used and method of analysis will be discussed.

5.2.1 Participant Recruitment

The method section outlined that participants were recruited to the project following the researcher detailing the proposal to a range of professionals in the same Trust. Three factors influenced the

decision not to recruit outside the Trust in which the author worked. The first was a consideration of the homogeneity of local facilities. Although clients within the same geographical location may have very different experiences of services, it was considered that recruiting from different districts may add more heterogeneity to the sample. As access to different local services may have been an external factor influencing attributions about illness. The second consideration was a clinical one. Given that the researcher worked with the majority of referrers, and valued their clinical judgements, it was considered less likely that clients referred would be adversely affected by the interviews. The third consideration was a practical one. Given that conducting the research in a number of districts would be time consuming, extra travelling would have slowed down the process.

5.2.2 Format and Location of Interviews

The researcher met clients at least once before the research interview took place. This was to provide clients with more choice in deciding whether or not they wanted to participate. This process was very time consuming and placed the research behind schedule, but was considered to be important from an ethical point of view. Often mental health users do not feel empowered to go against their perception of clinicians wishes. The author aimed to be sensitive to this issue during the research. Clients who were referred to the study were not considered to have acrimonious relationships with their relatives, from the perspective of their key workers. However it was considered to be essential to ask clients' permission prior to contacting their relatives.

Participants decided upon the locations for the interviews. The meetings took place in a range of venues. One could be criticised on the grounds that the settings were not comparable. However, participants personal choice was deemed more important. Furthermore, one could argue that it was the 'emotional environment' which was of importance. From this point of view the locations were comparable, in that participants were asked which location would be least stressful.

5.2.3 Issues Concerning Measures Used

The primary measure used in the study was a modified version of The Leeds Attributional Coding System (Brewin, 1988). This measure was chosen because the study sought to investigate the structure of causal attributions which participants made to explain psychotic symptoms. Weiner (1986) stated that investigating attributional dimensions underlying causal beliefs, is an adequate method for empirical research. Furthermore, this method had previously been applied to studies examining causal attributions underlying family atmosphere (Brewin et al., 1991; Barrowclough et al., 1994; Fernandez, 1994). Tarrier (1996) has praised research using this methodology.

However, the researcher holds mixed views about the usefulness of the measure. Learning to use the measure was arduous and time consuming. Furthermore, the guidelines seem to be designed with the views of relatives in mind. For example, the manual emphasises that it is the speakers views which are to be coded, and that the coder should not second guess the speaker. However, in some interviews it was not possible to clearly establish whether clients viewed experiences to be caused by something internal or external . For example, if a client commented that "the men outside" made him hear voices, it may not be clear whether he considered "the men outside" to be a feature of his psychosis at the time or whether he truly believed that they made him hear voices. In the latter case, the client may have held psychotic views (from the perspective of the rater) about the causes of the him hearing voices. However, if it was the clients' belief then this would have to be rated as an external attribution. Furthermore, the coding only allows for coding discrete events in relation to the attribution. In general people hold complex inter related beliefs about the causes of different symptoms.

Another problem was that the manual gave no guidance on what to do if participants list a number of different symptoms, and give one causal attribution. Should the rater consider this to represent three attributional statements, all having the same cause. Or alternatively chose to rate only one of

the symptoms . In the present study the author elected to investigate, the participants beliefs for each of the symptoms described, and apply this procedure systematically. However, the manual gives no guidance on this.

Overall, results which emerged from this methodology proved interesting. However during the process of coding the data there was a sense in which the quality of participants' communications was lost. Some participants were clearly moved when discussing their beliefs about the illness, and their communications seemed to emphasise the importance of one aspect of their causal attributions above another. These qualitative aspects of the research process were missing following the quantification of responses. Furthermore, two very different beliefs may have been coded in the same way. For example, attributing symptoms to a "brain defect" would be coded as internal, as would attributing a symptom to "being a bad person". Clearly a qualitative difference between these two codings exists, but would not be identified when using the LACS. This may suggest that the dimensions would benefit from being broken down further. However, this problem reflects the difficulties inherent in trying to reduce human responses to categories.

There were differences between the way in which the present study was conducted when compared to published work in the area. In the literature, relatives were interviewed shortly after the client had relapsed. Furthermore, the interviews followed the format of the Camberwell Family Interview. This contrasted with the present study in that relatives were likely to be less distressed than the relatives who were participants in the published research. Moreover, the present interview schedule directly questioned participants' about their causal attributions for symptoms.

Other measures used included the Knowledge About Schizophrenia Questionnaires (Smith and Birchwood, 1987), the Family Distress Scale, The Lebell Scales (Lebell et al., 1993), and the Beck Depression Inventory (Beck, 1979). There were problems with the Knowledge Questionnaires and the Family Distress Scale in that the author did not have access to standardisation information. This

compromised the potential to compare results gained from the present study, to those in the literature. At the time of choosing measures for the study, they appeared to be suitable as there was a lack of alternative measures. It is of note that many clients chose not to complete the knowledge questionnaire. This may be because it appeared dauntingly vast.

The Lebell Scales (Lebell, 1993) and the BDI were easily administered and most clients were willing to complete them. However, the fact that the researcher was present during their completion may have affected the responses clients gave. Furthermore, there is always the concern that clients may feel coerced into completing forms if a professional is present.

5.2.4 Discussion of Analysis

The sample size in the present study was relatively small. Hence any results must be viewed with caution. It could be argued that in instances where significant results were evidenced, this illustrated an important finding within the boundaries of the sample. As it is less likely that a significant effect will arise when the sample size is small. This suggests that when the outcome of analysis led to the acceptance of the null hypothesis, further research using a larger sample was indicated, as the acceptance of the null hypothesis may have been due to type 2 errors.

In the present study, the data were ordinal in nature, therefore non parametric statistics were used. Problems associated with using this statistical methodology are that the rank ordering of data only indicates that a score is higher or lower than other scores. Thus the absolute difference between measures cannot be analysed. A further issue raised in relation to the present methodology, pertains to the nature of the data gained from the coding of the interviews. Given that there were differences in the numbers of causal attributions made across interviews, mean attribution scores were obtained from the interviews. This enabled summarised data from interviews to be compared. However, this gives no indication of the diversity of responses obtained during the course of the

interviews, either in terms of the absolute numbers of statements made, or differences in the poignancy which participants may have placed upon the range of responses given.

Qualitative analysis was conducted to give the reader a sense of the quality of responses which clients and relatives gave. Given that the project was predominantly a quantitative study, the qualitative aspect was limited to the interviews of one client-relative pair. Nicholson (1995) encouraged the use of qualitative methods in mental health research as they are appropriate modes of analysis when one is enquiring about clients' views of their symptoms. The method employed in the present study was based on a grounded theory approach, in that categories which were generated, emerged from the text. However, Henwood and Pidgeon (1992) have highlighted the fact that the researcher is not a tabula rasa. Researchers bring their thoughts and beliefs about the world to the analysis of the data. The categories generated were descriptors of the data, and this approach seemed acceptable for the task. However, a more detailed analysis could have involved a more interpretative approach to analysing the data.

5.3 Clinical Implications

The nature of causal attributions expressed by participants varied depending upon the symptoms in question. Positive symptoms were seen as the least controllable and therefore may have evoked feelings of pity towards clients. Society also may regard mental illness as being out of the control of clients (Weiner, 1986). Whilst such views may reduce the likelihood of clients being blamed for their illness, it may also serve to adversely affect their perceived control over the illness and therefore reduce the chances of them gaining mastery over their symptoms. There is growing interest in the psychological management of psychotic symptoms in the field of schizophrenia. Strategies for enabling clients to gain more control over their illness, are predominantly based on cognitive behavioural interventions. Haddock and Slade (1996) documented the range of interventions which are being developed. These range from coping strategy enhancement for

persistent hallucinations and delusions, to cognitive therapy for voices. It is not within the scope of this discussion to detail these approaches, but it is suffice to say that they all aim to empower clients to cope with their residual psychotic symptoms. Only one of the clients in the present study was receiving psychological treatment of this nature. It is thus recommended that clients have greater access to individual psychological treatment. The availability of which should be built into service planning.

There is evidence that relatives themselves may need psychological therapy due to the distress which they may be experiencing . Winefield and Burnett (1996) have discussed the need for services to be responsive to the psychological needs of carers, as problems in their mental health will be detrimental to the client. They comment that this raises the question of “who is the client?”. Increasingly mental health services are being asked to work with clients who have the most severe and enduring mental health problems, and resources for mainstream adult mental health work is sorely scarce. However, if services are to work effectively with clients with psychosis, it should be evident that the needs of carers be addressed. Voluntary organisations like The National Schizophrenia Fellowship can offer excellent support to relatives particularly, but this should not be seen as main support by services.

Promoting individual support for clients and relatives should not be at the exclusion of family work. The present research emphasises the need to work with families. There was strong evidence that clients and relatives hold similar causal attributions regarding whether the illness is considered controllable or uncontrollable by the client. Furthermore, there was concordance between clients and relatives on the personal-universal dimension. This supports the need to work with both clients and relatives, as their beliefs may be mutually dependent. In the present study there was no clear evidence of animosity between relatives and clients. However, even in the expressed emotion literature (Leff and Vaughn, 1985) it is acknowledged that what they would term low EE families

may not be providing the calm, concerned environment that one might imagine. Their 'lack' of expressed emotion may reflect apathy, and the belief that the illness is insoluble. Relating this to the present study, illness symptoms were viewed as being beyond clients' control. The lack of emotionally charged affect during the interviews may have been indicative of family resignation that the illness was insurmountable.

It was of interest that clients' who perceived their relationships with key relatives to be poor, were more likely to get depressed. Furthermore, the group as a whole tended to be moderately depressed. Symbolic interactionism would support the view that clients' perceptions of their relationship with the key relative was an accurate reflection of that relationship. Furthermore, it may indicate that the family also were struggling with the manifestations of the illness. Intervention within such families may be indicated.

Much of the literature in the area has focused on the family management of schizophrenia approaches (e.g. Leff, Berkowitz, Shavit et al., 1990). These approaches are aimed at educating the family about schizophrenia, provide support to the relative and suggest coping strategies for managing the illness. Techniques tend to be behavioural in nature and focus more on the relative than the client. Whilst such methods may be helpful in enabling families to deal with 'difficult behaviours', they may not address the more subtle needs and of the family.

The interviews in the present study facilitated the expression of relatives' and clients' causal beliefs about the illness, and the findings suggested that causal beliefs may be influential in indicating the presence of unhelpful views. Establishing the causal attributions held by family members in a therapeutic context may enable clinicians to address the cognitions and beliefs of families. Attribution theory suggests that the causes people ascribe to events influence their feelings and subsequent behaviour. Tarrier (1996) has stated that research into the causal attributions held by relatives, may greatly influence the behavioural family management techniques currently used.

However, the author contends that all approaches to family work should aim to involve the client. Otherwise there is a danger that possible new cognitive approaches to family work will be guilty of neglecting the clients' beliefs and perceptions about the illness. Furthermore, it is important to consider the interactive processes occur in the family.

The author contends that in the case of some families, helping them to reattribute the illness using cognitive methods informed by attribution theory, may constitute a useful intervention in itself. However, merely 'transplanting' some notion of maladaptive cognitions, with more 'helpful' illness attributions would neglect the personal context in which they occur. The notion of causal attributions informing us about some of the beliefs held in families may be a useful starting point, but clinicians must be aware of the underlying feelings and dynamics in the family.

Historically speaking families deemed as expressing high EE have received most attention. It is important that moves towards seeing families more in terms of the causal attributions they make does not take a *carte blanche* view of what 'causal attributional profile' is best. It would seem important at this stage for clinicians to keep an open mind about the usefulness of the concept clinically.

5.3.1 Summary

Knowledge of causal attributions held by family members may provide useful indications of the types of beliefs and feelings which may be around in the family. However, it would be premature to make assumptions about whether this indicates a family is coping more or less well with the illness. It is important that clinicians and researchers investigate the meanings behind the causal beliefs which are expressed by clients and relatives. It is suggested that qualitative research is needed, in order to examine the experiences of families in greater detail.

Beliefs held by clients and carers may arise for many different reasons. They may reflect the views widely held by society; reflect a families emotional atmosphere because they require support; or may represent some underlying family conflict. Comprehensive services should be provided, so that the complex problems with which families and clients are faced, can be addressed. This may include individual support for clients and carers, good care planning, and a range of family interventions. At a wider systems level, the attitudes of society may heavily impact upon families. So strategies for services should be based on endorsing non-stigmatising practices.

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List of Appendices

Appendix One: Clients' Interview Schedule

Appendix Two: Relatives Interview Schedule

Appendix Three: Leeds Attributional Coding System

Appendix Four: Knowledge about Schizophrenia Questionnaire (Clients)

Appendix Five: Knowledge about Schizophrenia Questionnaire (Relatives)

Appendix Six: Family Distress Scale

Appendix Seven: Lebell Scales

Appendix Eight: Beck Depression Inventory

Appendix Nine: Clients' Information Sheet

Appendix Ten: Relatives Information Sheet

Appendix Eleven: Participant Consent Form

Appendix Twelve: Ethical Approval

Appendix Thirteen: Means and Standard Deviations

Appendix One:

Clients' Interview Schedule

PATIENTS INTERVIEW - REVISED (APPENDIX ONE)

1. a

Could we begin by you telling me when you first noticed that you were feeling unwell.?When did your mental health problems first start

Probes:

N.B: Probes will be more or less relevant depending upon the information which the client gives to you. The aim of the probes is to establish concrete examples of events and a description of corresponding thoughts and feelings about the incidents described.

- What did you experience ?
- What did you notice at that time?
- What happened then ?

- When did you first come into contact with hospital?
- What happened then?
- What were you thinking at that time?
- How did you feel at that time ?

(Establish whether there have been any subsequent admissions)

1.b. (To enable the client to recall the kinds of symptoms they may have experienced).

Some people with mental health problems may encounter a range of experiences, some of which you have already described. I am going to go through the kinds of problems people with mental health problems experience and ask you whether you recall having felt or experienced these things when you first became unwell.

For example : People might hear voices, have disturbing thoughts or feelings, may think people are against them, or that they are being controlled by something or someone.

Do any of these sound familiar to you/has this been your experience?

Probes:

- can you give me an example
- what makes you think that
- what did you think was happening
- How did you feel

1.c.

Sometimes people with mental health problems may find that they want to keep away from people, they may feel down or depressed, they may not look after themselves as well as they used to.

Was that your experience when you first became unwell?

Probes:

- What were the things you found you could not do as well?
- How did that make you feel?
- What did you think about that?

1.d.

Sometimes when people develop mental health problems they may behave in a way which is worrying to themselves or others. For example they may become aggressive or may shout at people, or behave in a threatening way.

Probes:

Did you ever find that to be the case?

What happened?

How did that make you feel?

What did you think about that?

2. Could you tell me about the most recent time that you really were not well. What problems have you had more recently to do with your mental health problems?

Probes:

- What have you noticed is wrong?
- Are these feelings and thoughts bothering you?
- Are the experiences linked to your mental health problems?

2.a. GENERAL:

Thinking generally about recent experiences you have described, what do you think causes those experiences? Do you think they are to do with your mental health problems or for other reasons?

2. b SPECIFIC:

Thinking re: experiences you mentioned earlier (positive symptoms to be recounted, check whether client still experiences those things) what do you think causes those experiences? How much control do you think you have?

2. c Repeat same process as 2.b but for negative symptoms.

2. d Repeat same process but for behavioural problems.

N.B. For 2.b to 2.d. ask client what a key relative would have thought caused those symptoms, and how much control a key relative would think the client had.

3 You have told me a number of problems you have had in the past and more recently (state what they are), now I would like to ask you generally what you think caused them in the first place.

Repeat process as indicated in number 2.

4. Has anybody put a name to these problems?
What do you understand by schizophrenia?

5. Questions re: other areas of life of importance to the client.

Appendix Two: Relatives Interview Schedule

Text cut off in original

APPENDIX TWO: RELATIVES INTERVIEW

1.A.

Could we begin by you telling me when ***** Mental Health Problems first started.

Probes:

Probes will be more or less relevant depending on what the relative tells you. The aim is to establish concrete examples for events and a description of corresponding thoughts and feelings:

- What did you think was happening ?
- What did you notice at the time?
- What happened then ?
- When did ***** first come into contact with hospital ?
- What were the events surrounding this?
- What were you thinking/feeling?

(Any subsequent admissions ?)

1.B. (Details of positive symptoms)

Some clients experience a range of difficulties some of which you have described. I am going to some of the kinds of symptoms people may experience, and ask you whether you son ever experienced these when he first became unwell .

Some clients may hear voices, have disturbing thoughts and feelings, think people are against them, or that they are being controlled by something or somebody.

Do any of these sound familiar ?

Probes:

- Can you give me an example
- What makes you think that
- What did you think was happening
- How did you feel

1.C.

Sometimes people with mental health problems tend to socially isolate themselves, dont look af themselves as well as they used to, seem down or depressed, and seem to lack emotion.

Did your son experience any of these symptoms ?

Probes:

- What things could he not do so well?
- How did that make you feel?
- What do you think about it ?

1..D.

Sometimes when people become unwell they behave in a way which is worrying to themselves & others. For example they may become aggressive and shout, or behave in a threatening way.

Probes:

Did you ever find that to be the case?

What did you think/feel ?

What exactly happened?

2. Could you tell me about the most recent time ***** was ill. What kind of things did he experience. Were they similar to previous times?

Probes:

- What did you think was happening ?
- What did you notice at the time?
- What happened then ?
- What were the events surrounding this?
- What were you thinking/feeling?

2.A. GENERAL

Thinking generally about the experiences you described. What do you think causes them to happen? Do you think its to do with the mental health problems or for other reasons?

2.B. SPECIFIC

Thinking about the experiences you mentioned earlier, what do you think caused them to happen? How much control did **** have ? (This is to be stated in cases where symptoms were mentioned but not picked up on. Recount experiences mentioned) .

2.C. Repeat same process but for negative symptoms.

2.D. Repeat same process but for behavioural problems.

3. We have talked about a number of difficulties which ****has had previously and more recently. Do you have any views on what may have caused***** difficulties in the first place ?

Appendix Three: Leeds Attributional Coding System

APPENDIX NOT COPIED
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Name: _____

This questionnaire is designed to help us understand your ideas about your illness.

IT IS IMPORTANT TO ANSWER EVERY QUESTION

Please remember:

1. Only tick one answer for each question, except where it is stated that more than one answer is needed.
2. If none of the answers provided seems to be appropriate, please select the answer which best describes the case for you.
3. Do write comments if you wish, but please make sure that you complete all the items of the questionnaire by ticking the most appropriate box.

Put a tick in the appropriate box:

1. Who can become schizophrenic?

- ☒ (1) Anyone
- ☐ (2) Men only
- ☐ (3) People with personality disorders
- ☐ (4) Criminals
- ☐ (5) Don't know

2. The usual age when the illness first attacks is:

- ☐ (1) Anytime
- ☐ (2) Middle age
- ☒ (3) In early twenties
- ☐ (4) Childhood
- ☐ (5) Don't know

3. The chance of developing schizophrenia is:-

- ☐ (1) 1 in 1000
- ☐ (2) 1 in 500
- ☒ (3) 1 in 100
- ☐ (4) 1 in 200
- ☐ (5) Don't know.

4. If one parent has schizophrenia the chances of their child also having schizophrenia is:-

- ☐ (1) The same as anyone else
- ☒ (2) Higher than anyone else
- ☐ (3) Lower than anyone else
- ☐ (4) A 99% possibility that the child will also have schizophrenia.
- ☐ (5) Don't know.

5. An attack of schizophrenia may be triggered by:

- ☐ (1) A knock on the head
- ☐ (2) Difficulties at birth
- ☐ (3) Physical illness
- ☒ (4) Stress
- ☐ (5) Don't know.

6. Which of the following is most common in schizophrenia?

- ☐ (1) To have just one attack and recover completely.
- ☒ (2) To have several attacks but with periods when you feel better in-between.
- ☐ (3) To be permanently ill with no periods of recovery whatever.
- ☒ (4) To have one attack but not completely recover to what you were before.
- ☐ (5) Don't know.

7. Which of the following do you believe are common symptoms of schizophrenia? (There is more than one answer)

- ☒ (1) Hearing voices
- ☒ (2) Lack of energy
- ☐ (3) Incontinence
- ☒ (4) Delusions
- ☐ (5) Headaches
- ☐ (6) Irritability
- ☐ (7) Loss of appetite
- ☒ (8) Lack of affection
- ☐ (9) Sleep problems
- ☐ (10) Overactivity
- ☒ (11) Withdrawal
- ☐ (12) Don't know.

8. Which of the following are negative symptoms of schizophrenia?
(there is more than one answer)

- ☐ (1) Hearing voices
- ☒ (2) Withdrawal
- ☒ (3) Lack of affection
- ☒ (4) Lack of energy
- ☐ (5) Thought disorder
- ☐ (6) Delusions
- ☐ (7) Irritability
- ☐ (8) Don't know.

9. A positive symptom of schizophrenia is?

- ☐ (1) A symptom that is definitely due to schizophrenia and not due to anything else.
- ☐ (2) A symptom that is used to diagnose schizophrenia.
- ☒ (3) When something is added to a persons normal behaviour
- ☐ (4) When there is a loss from the persons normal behaviour.
- ☐ (5) Don't know.

10. When schizophrenic symptoms reappear and get much worse this is called

- ☒ (1) Relapse.
- ☐ (2) Omission
- ☐ (3) Remission
- ☐ (4) Prolapse
- ☐ (5) Don't know.

11. When a person with schizophrenia is admitted to hospital under 'section' this means:

- ☐ (1) Voluntary admission
- ☒ (2) Compulsory admission
- ☐ (3) Admission with the patients consent
- ☐ (4) Admission by the police
- ☐ (5) Don't know.

12. The average length of stay in hospital for a first attack of schizophrenia is:

- ☒ (1) 3 - 6 weeks
- ☐ (2) 6 months
- ☐ (3) 12 weeks
- ☐ (4) One year
- ☐ (5) Don't know.

13. Medication can help reduce (remove symptoms) in what % of patients?

- ☐ (1) 25% (quarter)
- ☒ (2) 75% (three quarters)
- ☐ (3) 50% (half)
- ☐ (4) 100% (all)
- ☐ (5) Don't know.

14. The main medications given to remove schizophrenic symptoms are:

- ☐ (1) Antihistamines
- ☐ (2) Narcotics
- ☒ (3) Neuroleptics
- ☐ (4) Tranquillisers
- ☐ (5) Don't know.

15. If a person with schizophrenia is taking his medication the risk of getting a second attack of schizophrenia within one year is reduced from 75% to

- ☐ (1) 70%
- ☐ (2) 50%
- ☒ (3) 10%
- ☒ (4) 30%
- ☐ (5) Don't know.

16. Rehabilitation is the word for:

- ☐ (1) Giving medication
- ☒ (2) Helping the person to settle back to a normal life out of hospital.
- ☐ (3) Helping the person to find accommodation.
- ☐ (4) Hospital treatment
- ☐ (5) Don't know.

17. Medication is more effective with:

- ☒ (1) Positive symptoms
- ☐ (2) Negative symptoms only.
- ☐ (3) All symptoms equally
- ☐ (4) Mainly the negative symptoms
- ☐ (5) Don't know.

18. Which of the following are often associated with the onset of schizophrenia? (there is more than one answer)

- ☒ (1) Too much stress
- ☐ (2) Poor diet
- ☐ (3) Inability to get angry and express your feelings directly.
- ☒ (4) Runs in the family
- ☒ (5) Biological problems, body chemicals
- ☐ (6) Personality 'type' - just the kind of person
- ☐ (7) A split in the personality
- ☐ (8) Family problems while he/she was a child
- ☒ (9) An upsetting experience, loss of an important person.
e.g. by death, divorce etc.
- ☐ (10) Don't know.

19. If you notice side effects of the medication you are taking, you should:

- ☐ (1) Wait to see if the side effects go away
- ☒ (2) Ask the doctors advice
- ☐ (3) Come off the medication altogether
- ☐ (4) Take a lower dose of the medication than that prescribed by the doctor.
- ☐ (5) Don't know.

20. What is the best thing to do if you hear voices? (there is more than one answer)

- ☐ a) Listen to them carefully
- ☐ b) Do as the voices say.
- ☒ c) Keep active and take your mind off the voices
- ☐ d) Talk back to the voices.
- ☒ e) Talk to someone or read out loud.
- ☐ f) Don't know.

21. What is the best way to help yourself stay well and out of hospital? (there is more than one answer)

- ☒ a) Try to mix with people more.
- ☒ b) Try to keep active and do things with your time.
- ☐ c) Take things easy, don't do too much.
- ☐ d) I will always be ill so there is nothing I can do about it.
- ☐ e) Get plenty of rest and sleep.
- ☒ f) Take my medication regularly.
- ☐ g) Don't know.

22. How can you recognise a 'delusion'. (There is more than one answer).

- ☒ a) The beliefs are usually of a certain kind, e.g. that people want to hurt you.
- ☒ b) Everybody else disagrees with the belief.
- ☐ c) There is no such thing as a delusion.
- ☐ d) Other people have the same belief.
- ☐ e) Don't know.

23. If you had a belief which some people called a delusion what would you do about it?
(there is more than one answer).

- ☐ a) Talk about it openly and try to discuss it.
- ☒ b) Keep my ideas to myself.
- ☐ c) Keep on my guard all the time as I might be in danger.
- ☒ d) Try to distract my mind away from it and keep as active as possible.
- ☐ e) Try to prove to others that it is correct and really happening..
- ☐ f) Don't know.

24. Neuroleptic medication (e.g. Mofecate) is used to:

- ☒ a) Reduce the symptoms.
- ☐ b) To make the person feel less anxious.
- ☐ c) To stop side effects
- ☐ d) To make the person sleep.
- ☐ e) Make the person quieter.
- ☐ f) Don't know.

Appendix Five: Knowledge about Schizophrenia Questionnaire (Relative

Put a tick in the appropriate box:

APPENDIX FIVE

1. Who can become schizophrenic?

- ☒ (1) Anyone
☐ (2) Men only
☐ (3) People with personality disorders
☐ (4) Criminals
☐ (5) Don't know.

2. The usual age when the illness first attacks is:

- ☐ (1) Anytime
☐ (2) Middle age
☒ (3) In early twenties
☐ (4) Childhood
☐ (5) Don't know

3. The chance of developing schizophrenia is:-

- ☐ (1) 1 in 1000
☐ (2) 1 in 500
☒ (3) 1 in 100
☐ (4) 1 in 200
☐ (5) Don't know.

4. If you are a child of someone who has schizophrenia the chances of you also having schizophrenia are:-

- ☐ (1) The same as anyone else
☒ (2) Higher than anyone else
☐ (3) Lower than anyone else
☐ (4) A 99% possibility that you will also have schizophrenia.
☐ (5) Don't know.

5. An attack of schizophrenia may be triggered by:

- ☐ (1) A knock on the head
☐ (2) Difficulties at birth
☐ (3) Physical illness
☒ (4) Stress
☐ (5) Don't know.

6. Which of the following is most common in schizophrenia?

- ☐ (1) To have just one attack and recover completely.
☒ (2) To have several attacks but with periods when you feel better in-between.
☐ (3) To be permanently ill with no periods of recovery whatever.
☐ (4) To have one attack but not completely recover to what you were before.
☐ (5) Don't know.

7. Which of the following do you believe are common symptoms of schizophrenia? (There is more than one answer)

- ☒ (1) Hearing voices
- ☒ (2) Lack of energy
- ☐ (3) Incontinence
- ☒ (4) Delusions
- ☐ (5) Headaches
- ☐ (6) Irritability
- ☐ (7) Loss of appetite
- ☒ (8) Lack of affection
- ☐ (9) Sleep problems
- ☐ (10) Overactivity
- ☒ (11) Withdrawal
- ☐ (12) Don't know.

8. Which of the following are negative symptoms of schizophrenia? (there is more than one answer)

- ☐ (1) Hearing voices
- ☒ (2) Withdrawal
- ☒ (3) Lack of affection
- ☒ (4) Lack of energy
- ☐ (5) Thought disorder
- ☐ (6) Delusions
- ☐ (7) Irritability
- ☐ (8) Don't know.

9. A positive symptom of schizophrenia is?

- ☐ (1) A symptom that is definitely due to schizophrenia and not due to anything else.
- ☐ (2) A symptom that is used to diagnose schizophrenia.
- ☒ (3) When something is added to a persons normal behaviour
- ☐ (4) When there is a loss from the persons normal behaviour.
- ☐ (5) Don't know.

10. When schizophrenic symptoms reappear and get much worse this is called

- ☒ (1) Relapse.
- ☐ (2) Omission
- ☐ (3) Remission
- ☐ (4) Prolapse
- ☐ (5) Don't know.

11. When a person with schizophrenia is admitted to hospital under 'section' this means:

- ☐ (1) Voluntary admission
- ☒ (2) Compulsory admission
- ☐ (3) Admission with the patients consent
- ☐ (4) Admission by the police
- ☐ (5) Don't know.

12. The average length of stay in hospital for a first attack of schizophrenia is:

- ☒ (1) 3 - 6 weeks
- ☐ (2) 6 months
- ☐ (3) 12 weeks
- ☐ (4) One year
- ☐ (5) Don't know.

13. Medication can help reduce (remove symptoms) in what % of patients?

- ☐ (1) 25% (quarter)
- ☒ (2) 75% (three quarters)
- ☐ (3) 50% (half)
- ☐ (4) 100% (all)
- ☐ (5) Don't know.

14. The main medications given to remove schizophrenic symptoms are:

- ☐ (1) Antihistamines
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- ☐ (4) Tranquillisers
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- ☐ (3) Inability to get angry and express your feelings directly
- ☒ (4) Runs in the family
- ☒ (5) Biological problems, body chemicals
- ☐ (6) Personality 'type' - just the kind of person
- ☐ (7) A split in the personality
- ☐ (8) Family problems while he/she was a child
- ☒ (9) An upsetting experience, loss of an important person.
e.g. by death, divorce etc.
- ☐ (10) Don't know.

19. To help the person recover from schizophrenia the family should try to: (there is more than one answer)

- ☐ (1) Leave the person alone
- ☒ (2) Try to get him to do things for himself
- ☐ (3) Do as much for the person as possible.
- ☒ (4) Encourage him to go out and mix with people.
- ☐ (5) Let the patient do what he wants to do.
- ☐ (6) Not burden the patient with household tasks
- ☒ (7) Ensure that he takes his medication
- ☐ (8) Don't know.

20. To help themselves the family should: (there is more than one answer)

- ☐ (1) Leave the person totally alone
- ☒ (2) Talk about their difficulties with friends
- ☐ (3) Try and forget about the difficulties and problems they have to face
- ☒ (4) Get out doing things and seeing friends
- ☒ (5) Help the patient as much as possible but make sure that they still keep their own interests and hobbies.
- ☐ (6) Put all their efforts and time into helping the patient to recover.
- ☐ (7) Ignore the patient and try and get on with their own lives
- ☐ (8) Don't know.

21. Which of the following are unhelpful to a person with schizophrenia: (there is more than one answer).

- ☒ (1) Too much pressure on the person
- ☒ (2) Nagging by the family
- ☒ (3) Sitting around all day
- ☒ (4) Stopping taking medication
- ☐ (5) Giving the person responsibility
- ☐ (6) Treating the person like an adult.
- ☐ (7) Don't know.

22. If you notice side effects of the medication that your relative is taking you should:

- 0 ☐ (1) Wait to see if the side effects go away
☒ (2) Ask the doctors advice
☐ (3) Come off the medication altogether
☐ (4) Take a lower dose of the medication than that prescribed by the doctor.
☐ (5) Don't know.

23. The best family environment for a person suffering from schizophrenia is where:

- 0 ☐ (1) The person can do what he likes.
☐ (2) The person spends most of his time with another family member.
☐ (3) The person is forced to go out and get a job.
☒ (4) The person is encouraged to take up things he used to do.
☐ (5) The family takes care of all the persons needs and protects the person from any stress.
☐ (6) Don't know.

Appendix Six:

Family Distress Scale

APPENDIX SIX

B = BURDEN. F = FEAR I = IMPACT
W = WORRY S = STIGMA

FAMILY DISTRESS

SCALE.

Regarding ... 's behaviour today or in the past few weeks:

		Not at all	Some- times	Often	Almost always	Does n. appl
B	1. How much trouble has ... been at night (being noisy, wandering about, etc.)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B	2. Has ... been a nursing problem (i.e. bedridden, incontinent, needing to be fed or bathed)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
W	3. Has ...'s safety been a source of worry (for example wandering off by himself, using the car, etc.)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
F	4. Has ...'s behaviour caused you to fear for the safety of others?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B	5. Has ... caused any difficulty by being unco-operative?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B	6. Does ... represent a strain by relying and depending on you or people in the home too much?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B	7. Has ...'s constant restlessness, noisiness or talking been upsetting to you or the family?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B	8. Has ...'s frequent body symptoms or complaints worried you?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
S	9. Has ... been a problem because of sexual, rude, or objectional behaviour?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
S	10. Has ...'s behaviour caused you any embarrassment because he speaks or behaves oddly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
S	11. Has ... caused any trouble with the neighbours?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I	12. Is your household work or routine upset by ...?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I	13. Are the social or leisure time activities of the family interfered with because of ...?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I	14. Has anyone in the household had to stay away from work because of ...?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Not at all	Some- times	Often	Almost always	Does not apply
15. Has anyone in the household had to stay away from school because of ...?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. Has ...'s behaviour caused you much worry? (overall)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. Has ... been a physical strain on you?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. Does ... require excessive amount of attention or companionship?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. Are the children ashamed because of ...?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. Are the children afraid of ...?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21. Do you feel ashamed because of ...?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22. Are you afraid of ...?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23. Has ... been an emotional strain on you?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24. Has ... been quiet or non-communicative been upsetting to you or the family?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25. Has ... been a financial strain on you?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26. Has ...'s lack of interest in doing things or seeing people been upsetting to you or the family?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27. Have you or other members felt neglected because of ...'s illness?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
28. Has ...'s irritability or argumentativeness been upsetting to you or your family?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29. Has ...'s difficulty making decisions been a burden on you?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
30. Has ...'s illness made it difficult to plan for the future?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
31. (If spouse). Does ...'s lack of interest in sex upset you?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

		Not at all	Some- times	Often	Almost always	Does not appl:
B	32. Has ...'s lack of energy or fatigue become a burden on you?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B	33. Has ...'s sleep problem been upsetting to you?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B	34. Has ...'s appetite change caused problems for you?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B	35. Has ...'s constant worrying and nervousness been distressing to you?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B	36. Has ...'s discouraged hopeless attitude caused you to feel discouraged?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
W	37. Do you worry about what will happen to ... in the future?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
W	38. Do you worry about the medications that ... is taking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
F	39. Has ...'s behaviour caused you to fear for your own safety?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
F	40. Has ...'s behaviour caused you to fear about the safety of your possessions and property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
S	41. Has ... caused any trouble with the police?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
S	42. Has ... caused any embarrassment with friends?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I	43. Has ...'s illness reduced the enjoyments and outlets in your life (e.g. hobbies, interests, forms of relaxation)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I	44. Has ...'s illness affected the relationship or contact you have with friends, relatives etc.?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I	45. Has ...'s illness reduced the number of holidays and breaks you can take	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I	46. Has ...'s illness affected or reduced the times when you can go out (e.g. pub, cinema, walks etc.)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Appendix Seven: Lebell Scales

APPENDIX SEVEN: LEBELL SCALES

The measure below enquires about your thoughts and feelings towards your relative, and your beliefs about their thoughts and feelings towards you. Please indicate which statement you agree with most by putting a circle around the number next to the statement which reflects your views most closely.

LEBELL A

Your thoughts and feelings towards your relative:

mostly very strong negative thoughts and feelings	mostly moderate negative thoughts and feelings	equally mixed positive thoughts and feelings	mostly moderate positive thoughts and feelings	mostly very strong positive thoughts and feelings
1	2	3	4	5

LEBELL B

Your beliefs about your relatives' thoughts and feelings towards you

mostly very strong negative thoughts and feelings	mostly moderate negative thoughts and feelings	equally mixed positive thoughts and feelings	mostly moderate positive thoughts and feelings	mostly very strong positive thoughts and feelings
1	2	3	4	5

Appendix Eight: Beck Depression Inventory

Name:

801

Date:

This is a questionnaire to help us find out how you feel about yourself. Please read the four statements in each question and then pick out the one which best describes how you have been feeling in the past week. Circle the number beside the statement you have chosen.

1.0 I do not feel sad

1 I feel sad

2 I am sad all of the time and I can't snap out of it

3 I am so sad or unhappy that I can't stand it.

2.0 I am not particularly discouraged about the future

1 I feel discouraged about the future

2 I feel I have nothing to look forward to

3 I feel that the future is hopeless and that things cannot improve

3.0 I do not feel like a failure

1 I feel I have failed more than the average person

2 As I look back on my life, all I can see is a lot of failures

3 I feel I am a complete failure as a person.

4.0 I get as much satisfaction out of things as I used to

1 I don't enjoy things the way I used to

2 I don't get real satisfaction out of anything any more

3 I am dissatisfied or bored with everything.

5.0 I don't feel particularly guilty

1 I feel guilty a good part of the time

2 I feel quite guilty most of the time

3 I feel guilty all the time.

6.0 I don't feel I am being punished

1 I feel I may be punished

2 I expect to be punished

3 I feel I am being punished.

7.0 I don't feel disappointed in myself

1 I am disappointed in myself

2 I am disgusted with myself

3 I hate myself.

8.0 I don't feel I am any worse than anybody else

1 I am critical of myself for my weaknesses or mistakes

2 I blame myself all the time for my faults

3 I blame myself for everything bad that happens.

- 9.0 I don't have any thoughts of killing myself
1 I have thoughts of killing myself but I would not carry them out
2 I would like to kill myself
3 I would kill myself if I had the chance.
- 10.0 I don't cry any more than usual
1 I cry more now than I used to
2 I cry all the time now
3 I used to be able to cry, but now I can't cry even though I want to
- 11.0 I am no more irritated than I am normally
1 I get annoyed or irritated more easily than I used to
2 I feel irritated all the time now
3 I don't get irritated at all by the things that used to irritate me
- 12.0 I have not lost interest in other people
1 I am less interested in other people than I used to be
2 I have lost most of my interest in other people
3 I have lost all of my interest in other people.
- 13.0 I make decisions as well as I ever could
1 I put off making decisions more than I used to
2 I have greater difficulty in making decisions than I used to
3 I can't make decisions at all any more.
- 14.0 I don't feel I look any worse than I used to
1 I am worried that I am looking old or unattractive
2 I feel that there are permanent changes in my appearance that make me look unattractive
3 I believe I look ugly.
- 15.0 I can work about as well as before
1 It takes an extra effort to get started at something
2 I have to push myself very hard to do anything
3 I can't do any work at all.
- 16.0 I can sleep as well as usual
1 I don't sleep as well as I used to
2 I wake up 1 to 2 hours earlier than usual and find it hard to get back to sleep
3 I wake up several hours earlier than I used to and cannot go back to sleep.
- 17.0 I don't get more tired than usual
1 I get tired more easily than I used to
2 I get tired from doing almost anything
3 I am too tired to do anything.
- 18.0 My appetite is not worse than usual
1 My appetite is not as good as it used to be
2 My appetite is much worse now
3 I have no appetite at all any more.

19. I haven't lost much weight, if any, lately

1 I have lost more than 5 lbs

2 I have lost more than 10 lbs

3 I have lost more than 15 lbs.

20.0 I am no more worried about my health than usual

I am worried about physical problems such as aches and pains,
or upset stomach, or constipation

2 I am very worried about physical problems and its hard to think
of much else

3 I am so worried about my physical problems, that I cannot think
about anything else.

21 I have not noticed any recent change in my interest in sex

1 I am less interested in sex than I used to be

2 I am much less interested in sex now

3 I have lost interest in sex completely.

Appendix Nine: Clients' Information Sheet

APPENDIX NINE: INFORMATION SHEET FOR CLIENTS

Beliefs and experiences of clients using mental health services.

This study is being carried out by Marina Richards, Psychologist in Clinical Training, and Supervised by Dr Tony Lavender, who is a Clinical Psychologist with extensive experience in working with people experiencing mental health problems. I am also receiving clinical supervision from Fabian Davis.

We are interested in the beliefs and knowledge people with mental health problems and their relatives have about mental health problems. We are also interested in the things which may make the illness worse. We hope that by improving our understanding we may provide services which meet your needs.

Procedure (What will happen during the interview)

This study will involve an interview in which you will be asked about your views on the symptoms you experience. At the end of the interview you will be asked to complete a questionnaire which asks you to rate how you feel about your relative and how you think your relative feels about you. A questionnaire asking about how you feel at the moment will also be given. Finally a questionnaire will be given to you which asks you questions about mental illness will be given. You can take this away if you wish, and fill it in later

The interviews will be audio taped so I can listen to what you are saying rather than taking notes.

The interview should take no longer than one hour.

Confidentiality

All material will be held in confidence and only used for research purposes. Audio tapes will only be listened to by the researcher and her supervisor. They will then be taped over. The research will be written up, but no ones identity will be disclosed.

You do not have to take part in the study and can stop the interview at any time, it is your right to do so. This will not affect the service you receive in any way.

After the interview, if you want further information, or anything is unclear, you can contact me at 151 Hastings road, Bromley, Kent. (Tel: 0181 4620934)

Appendix Ten: Relatives Information Sheet

INFORMATION SHEET FOR RELATIVES

Beliefs and Experiences of Clients and Families using Mental Health Services

This study is being carried out by Marina Richards, Psychologist in Clinical Training, and supervised by Dr Tony Lavender, who is a Clinical Psychologist with extensive experience in working with people experiencing Mental Health problems. I am also receiving clinical supervision from Fabian Davis.

We are interested in the beliefs and knowledge people with mental health problems and their families have about mental illness. We are also interested in things which may contribute to stress experienced by users and their families. We hope that by improving our understanding of the experiences of users and their families, Mental Health Services will be in a better position to provide services to meet their needs.

Procedure (what will happen in the interview)

This study will involve an interview in which you will be asked about your views on the symptoms and behaviours shown by your relative. At the end of the interview you will be asked to complete a questionnaire which looks at what you know about your relative's illness, and a questionnaire which looks at stress you may be experiencing.

The interviews will be audio taped so that I can spend time attending to what you are saying rather than writing notes.

Interviews should take no longer than one hour.

Confidentiality

All material will be held in confidence and only used for research. The audio tapes will only be listened to by the researcher and her supervisor. They will then be taped over. The research will be written up, but no individual's identity will be disclosed.

You do not have to take part in this study. If at any time you want to stop the interview, it is your right to do so. It will not affect the service you receive in any way.

After the interview if you would like further information, or anything is unclear, please do not hesitate in contacting me at 151, Hastings Road, Bromley. (Tel: 0181 4620934).

Appendix Eleven: Participant Consent Form

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INFORMED CONSENT

Marina Richards
Psychologist
Tel: 0181 4623490

If anything is unclear about any aspect of the study please feel free to ask me now or at any point in the future.

Please delete as necessary.

1. Have you read the information sheet about the study YES / NO
2. Have you had the opportunity to discuss this study with the researcher YES / NO
3. Have you received satisfactory answers to questions you may have had ? YES / NO
4. Have you been given enough information about this study ? YES / NO
5. I give permission for the interview being audio taped ? YES / NO

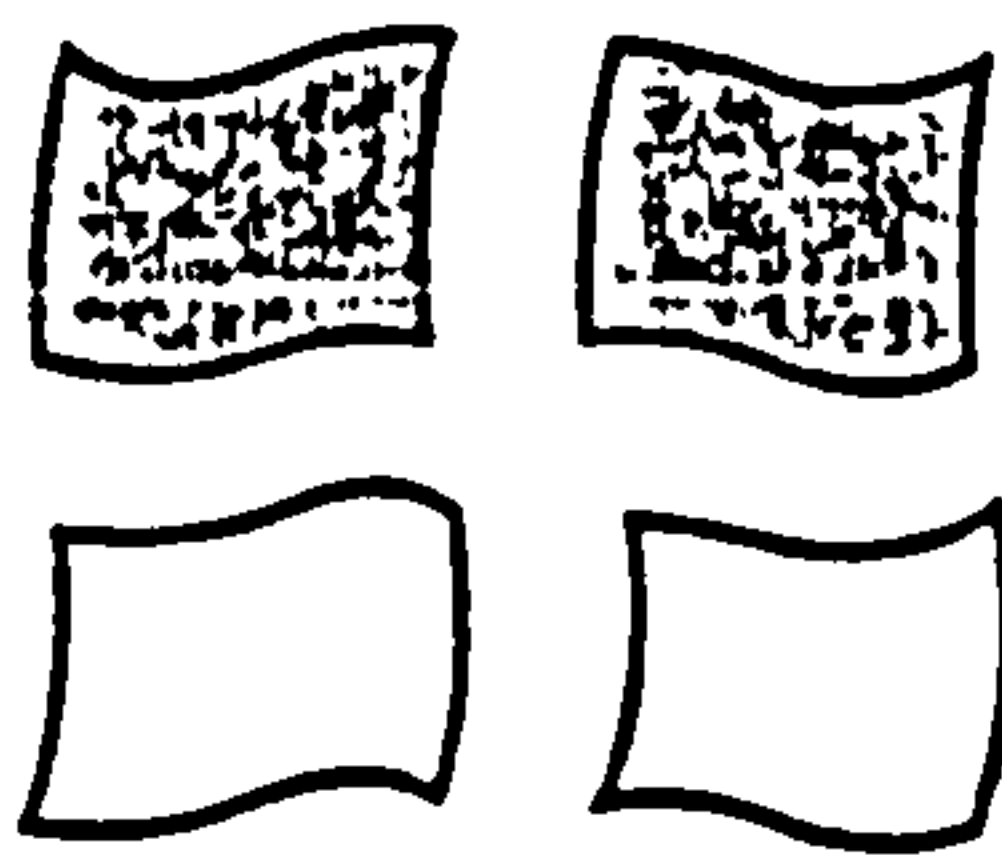
I understand that it is my right to stop the interview at any time and refuse to answer questions.

Signature _____

Please print name _____

Date _____

Appendix Twelve: Ethical Approval



APPENDIX TWELVE .

BROMLEY HEALTH

Department of Public Health Medicine/
Medical Directorate
Director

Dr J Spiby

29 January 1996

Miss Marina Richards
Psychologist
Community Rehabilitation Service
Terrance House
151 Hastings Road
BROMLEY
Kent BR2 8NQ

Dear Miss Richards

AN INVESTIGATION INTO THE ATTRIBUTIONS MADE BY PATIENTS WITH THE DIAGNOSIS OF SCHIZOPHRENIA AND THE ATTRIBUTIONS OF SIGNIFICANT OTHERS. TO EXPLAIN THE MANIFESTATIONS OF THE ILLNESS.

Thank you for presenting this protocol to the Bromley Local Research Ethics Committee (LREC). I am writing to inform you that I am prepared to provide ethical approval for this protocol, acting on Chairman's action. This is considered sufficient for work to progress and my decision will be reported to the full LREC for ratification when it meets on 22 February. You should presume that this decision has been ratified unless the Committee raises further issues, in which case I will write again following that meeting.

Having carefully considered your protocol, the only point on which I think it would be helpful to have some further clarification is the question of who is providing your professional supervision, and the associated issue of who is taking clinical responsibility for patients within your research project. I would appreciate receiving a letter of confirmation from your supervisor and the locally responsible consultant for these patients.

I do, however, wish you well in your research endeavours and, on behalf of the Committee, I would appreciate being kept informed of your final findings.

Yours sincerely

John Chadwick
Chairman, Bromley Local Research Ethics Committee

SDRCHDS.LET

Bromley Health Authority and Bromley Family Health Services Authority
Global House, 10 Station Approach, Hayes, Kent, BR2 7EH.
Telephone 0181 462 2211, Fax 0181 462 6767

Appendix Thirteen: Means and Standard Deviations

APPENDIX 13-MEAN S AND STANDARD DEVIATIONS

Table 1: Description of data on Causal Attribution scores across categories; N = 18

Attribution		Positive Symptoms		Negative Symptoms		Behavioural Symptoms	
Dimension		Mean	Sd	Mean	Sd	Mean	Sd
Internal - External	-	1.92	0.640	1.56	0.472	1.69	0.420
Personal - Universal	-	2.16	0.669	2.14	0.791	1.96	0.380
Controllable - Uncontrollable	-	2.80	0.253	2.21	0.689	2.02	0.660
Stable - Unstable	-	2.42	0.506	1.99	0.621	2.65	0.413

Table 2: Descriptive information concerning results generated from the Beck Depression Inventory; N = 14

	Mean	Sd
Depression Score	18.71	10.231

Table 3: Descriptive data pertaining to ratings on the Lebell Scales; N = 14

	Mean	Sd
Lebbel A	3.42	0.640
Lebbel B	2.93	0.640

Table 4: Descriptive data related to valid cases on the Lebbel B Scale and the BDI; N = 13

	Mean	Sd
Lebbel B	2.92	0.862
Depression Score	18.54	10.627

Table 5: Description of Causal Attribution Scores across categories; N = 11

Attribution		Positive Symptoms		Negative Symptoms		Behavioural Symptoms	
Dimension		Mean	Sd	Mean	Sd	Mean	Sd
Internal - External		1.36	0.367	1.37	0.320	1.71	0.658
Personal - Universal		2.47	0.435	2.03	0.718	1.70	0.479
Controllable - Uncontrollable		2.75	0.438	2.31	0.641	1.79	0.360
Stable - Unstable		2.43	0.490	2.05	0.648	2.62	0.460

Table 6: Descriptive Information about Relative Knowledge and Distress Scores; N = 9

	Mean	Sd
Relatives Knowledge	23.33	6.819
Distress	33.78	15.548

Table 7: Descriptive Information on Knowledge Scores for Relatives and Patients; N = 5 matched pairs

Knowledge Score	Mean	Sd
Relatives	23.20	5.263
Patients	18.00	6.964